THE VETERINARY RECORD

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"CATTLE PATHOLOGY."

Last week we published an interesting article from the pen of Garnett, describing the apparent co-existence of two specific contagious diseases among a flock of sheep. The first and better known of these was diagnosed absolutely by the microscope, while the author, by the use of an interrogation mark in his title, leaves the exact identity of the second still open to controversy. Whether the complete diagnosis which we see no reason to question—is agreed with or not, the report possesses several features of special interest. An enzootic ophthalmia of herbivora has previously been described, but not by many observers, and any fresh contribution to the subject is of interest and value. Again, the distribution of the psoroptes was not quite in accordance with that described by classical authorities. But by far the most important aspect of the case, as Mr. Garnett points out, is the history of ineffective dipping, and the conclusions drawn—by no means without reason—regarding the efficacy of the scheduled dip. The whole article deserves careful study, especially from country practitioners—but to us it suggests a further reflection, which is not altogether a pleasant one.

It is a remarkable fact that, of the clinical cases and articles which appear in veterinary periodicals, so large a proportion relate to equine and canine practice. It is natural that these two branches of our work, which are common to town and country alike, should predominate in our professional records, but they do so to an undue extent. Not that too much is written of the diseases of horses and dogs—far from it. The unsatisfactory point is that too little is written regarding those of cattle and sheep.

If we except tuberculosis, obstetrics, and a few other well known subjects, we do not find much in our professional journals of late years that is drawn from cattle practice. Still less is being written concerning the diseases of the sheep. There are many country practitioners in Great Britain who have a wide experience of the diseases of these two animals, but it cannot be said that collectively they contribute much to our enlightenment. Some of these are careful observers, and must be in a position to add to the sum of professional knowledge, and this renders their abstinence from communicating their results all the more regrettable.

This is not as it should be, and we hope soon to see an increased number of contributors to these two important branches of veterinary science.

Careful records of clinical observations assist in the elucidation of disease no less than do studies in the laboratory. The pathologist, whose facilities for the study of bovine and ovine subjects are often somewhat limited, is certainly doing good work. But the man on the spot, whose everyday practice lies among cattle and sheep, is scarcely at present making full use of his opportunities to advance the profession.

THE M'FADYEAN TESTIMONIAL.

The Royal Veterinary College was the scene of a pleasant ceremony last week, where Sir John M'Fadyean was presented with a portrait of himself, of which a replica is in the possession of the R.C.V.S.

It strikes us as very fitting that the "M'Fadyean Testimonial" should reach its final stage within the walls of the College in which the best and most fruitful years of the recipient's life have been passed.

This marks the close of perhaps the most notable and spontaneous expression of goodwill towards one man that has ever emanated from the profession in England. It is unnecessary to remind any reader of the history and result of the movement, but the figures of the complete subscription list may not be known to all. The number of subscribers was 651, and the total amount of the subscription £709 9s. We all know how the money was spent. At the close the Executive Committee were in possession of a surplus of £22 4s. 5d., a cheque for which has been handed to Sir John, and will be devoted to the purchase of some additional memento.

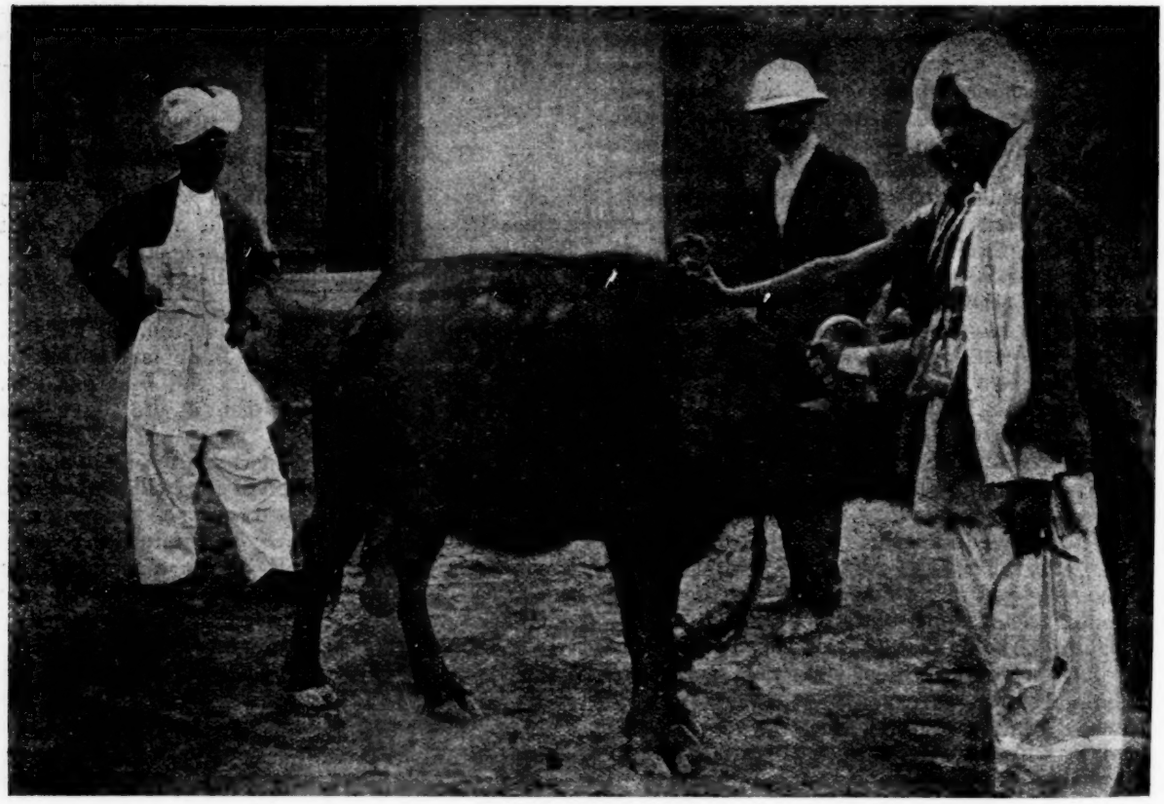
Most subjects which arouse the veterinary profession to action are more or less controversial, and it may be a long time before we are all perfectly agreed again in any movement, as we certainly have been in this. We are unanimous now in wishing Sir John a long life of well-merited honour—perhaps additional honour to that which he enjoys at present. The subject will always be a pleasant one, but before we finally leave it, it may be said that the M'Fadyean Testimonial reflects not a little credit upon a profession which knew how to appreciate its scientific leader.

Undoubtedly Sir John M'Fadyean richly deserves the tokens of our esteem which he has received—that goes without saying. But the fact that those tokens have come from so many hands will probably be a source of additional gratification to him, as it certainly is to us. Looking back in the future upon the year 1906, it will be pleasant to recollect that the profession fully recognised the worth of the man, who, in so many directions, did so much towards its advancement.

PAPILLOMATOUS TUMOURS IN A BUFFALO.

The buffalo shown in the accompanying photograph belongs to a Mahomedan, who travelled a distance of nearly twenty-five miles to have it treated in this dispensary. The animal is five years old, and according to the statement of the owner, the big bunch of papillomatous tumours seen hanging from the inner side of the right thigh has been growing from the size of an ordinary button to the present size of a football within the last four years. The owner, as usual with the people here, who are too ignorant to have any sick animal treated in the first stage, paid no attention to the gradually increasing tumour, and it was only when he found that the animal was being weakened and put in great inconvenience by the enlargement that he thought it advisable to take some steps for the relief of the poor creature.

The bunch of tumours, on being removed with an ordinary castration clams and cautery, weighed just over 6½lbs. In addition to this there were many different sized tumours on the right side of the mammary glands. These were also removed with a knife and their seats cauterised. The right quarters of the udder are slightly enlarged and indurated, but, according to the owner, the milk secretion was not in the least affected by the swelling. I have had many cases of warts, both in horses and cattle, which were situated mostly about the lips and nostrils, but I never came across a case of tumour of such dimensions as shown in the accompanying picture.



JOACHIM DACOSTA, G.B.V.C.

Khairpur Mirs, Sind,
9th Feb

A PECULIAR CASE OF TRAUMATIC PNEUMONIA.

An interesting case of this disease came under my notice in Grahamstown, Cape Colony. I was first called in on January 26th, 1906. The animal, a milch cow, owned privately, had the symptoms of a mild pneumonia which I localised by auscultation as affecting the lower portion of the left lung. After a few days of febrifuge treatment the cow seemed to be getting better, when suddenly she developed redwater (malarial or tick fever) in a severe form and died on February 7th.

On post-mortem examination, in addition to the typical lesions of redwater, I found lodged in the left lung and surrounded by a semi gangrenous hepatized area, a strong hard piece of bone, four inches long and wedge shaped, one end being sharpened to a very fine point. Opposite this spot under the costal pleura I found some extravasated blood, and externally there was a very small cicatrix in the skin at a point which in the living animal would be covered by the point of the elbow, and therefore easily escaped our notice during the clinical examinations.

The native herd, a Kaffir who bore a bad character, had quarrelled with the owner, who then relieved him of the charge of his small herd just before the cow's illness, and the "boy" doubtless took this way of getting even with his master. As this native herded for other cattle owners on the commonage where there were many more herd boys employed there was obviously little or no chance of bringing the guilt home to the culprit.

The piece of bone I judged to be, from its thickness, part of the inner aspect of a bovine tibia. It had evidently been trimmed very carefully with a knife or piece of glass, and was so smooth that it could easily have been driven into the chest at an intercostal space by a sharp blow with a hammer, stone, or the palm of the hand. It almost looked as if it had been intended to pierce the heart and so produce instant death. Apart from the motive of revenge the South African native will occasionally commit such deeds in order to secure a feast of beef for himself and friends, for there is little chance of his vicious act being detected where, as so often happens, the diagnosis as to the cause of death is left to himself, the owner, a townsman, being either all unsuspecting or too ignorant of stock diseases to consider it worth his while even looking at the carcase. No carcase, no matter from what disease death has ensued, is in the native's eye unfit for his own household consumption.

J. Spreull, M.R.C.V.S.

Koopmansfontein, Barkly West.

ABSTRACTS FROM FOREIGN JOURNALS.

Cæsarean Section in Swine.—By M. G. de Bruin.

(Concluded from page 493.)

Suturing the abdominal wound.—The muscles are sutured with sterilised silk No 6. The sutures are put near enough to place the edges of the abdominal wound in apposition. It is not necessary to suture the peritoneum. The number of sutures is from 10 to 12. One must be sure that all the muscle is included in the suturing. It sometimes happens that a strand of muscle retracts and by chance remains outside the suture. During suturing the hind leg of the sow is drawn forward in order that the wound may not be stretched.

As regards healing of the wound it is immaterial whether a continuous suture or button sutures are used, providing the above rules are observed. The skin is sutured with 8 mm. broad sterile tape, taking care that the edges of the skin wound approximate and do not wrinkle. About 10 sutures are sufficient. The sutures are rubbed with airol and covered with collodion. An abdominal bandage is unnecessary. The sow is now put in a stall with dry straw and has fluid nourishment for a few days. The results of the numerous cases here recorded (here follow records of 23 cases operated on by Herr M. G. de Bruin and his assistant, Dr. J. Nanta) lead one to the following conclusions: Where, although with great difficulty, it is possible to effect delivery of fœtuses through the birth passage, and especially if the hand cannot be passed into the uterus, cæsarean section should be performed. Local anæsthesia is better than general narcosis for this cæsarean section. If the fruit is emphysematous, the sow's temperature up, no appetite, no milk in the teats, a soporific state, then the course of the operation is deadly. (Kasselman operated on 25 sows of which 19 recovered. He says all the animals died in which there were foul fœtuses). The statistics here given would have been much more favourable if the operation had not been undertaken in cases such as these mentioned, and if one had not operated on animals with necroses of the vaginal wall.

Where sectio-cæsarea is performed under aseptic precautions in cases in which neither the owner nor the laity have explored, and in those where labour pains have not been in evidence longer than 24 hours, the course of the operation is as a rule favourable. Of 23 cases operated on by Herr Bruin and Herr Nanta 11 animals recovered and 12 died.—Ex. *Berliner Thierarzt Woch.*

G. M.

Is the Dust Derived by Dessication of Tuberculous Sputum Dangerous?

Professor Cadéac, of the Lyons Veterinary School, says there is not a single experimental fact to establish the hypothesis that tuberculosis is transmitted by the inhalation of dust derived from places infected by the expectoration of tubercular sputum.

He has carried out two sets of feeding experiments on nearly one hundred guinea-pigs without obtaining one positive result.

In the first set the dust used was from sputum dried in darkness, and in the second from sputum exposed to the light inside the laboratory or museum. – *Journ. de Méd. Vét.*, 28th Fev., 1907.

Note.—This series of experiments conducted under *natural conditions* go to support the contention of those who maintain that the transmission of tuberculosis is nearly identical to that of glanders. They also support the clinical observations made on attendants in hospitals and sanatoria for the treatment of consumptives. In all probability before many years are passed it will be generally admitted that the majority of infectious diseases are conveyed by the ingestion of fresh virus, etc.

H. G.

The methods of infection by B. tuberculosus, and the present state of our knowledge on anti-tubercular vaccination in Bovines. By Dr. A. Calmette, Director of the Pasteur Institute at Lille.*

If some day the bacteriologists dower mankind with an effective method of vaccination against that terrible scourge, tuberculosis, they will owe it to

* Address at the Annual Meeting of the Vet. Med. Soc. of the Departement du Nord, 23rd Dec., 1906.

their close and continued collaboration with veterinarians. Whoever may have the glory of attaching his name to that discovery cannot but render homage to the labours which have prepared his road for him, and these labours have sprung for the most part from illustrious savants of which your profession has the right to be proud. Chauveau, Thomassen, Bang, Nocard, Ostertag, Schütz, Malm, Arloing, Swenson, Rossignol—to mention only the most celebrated amongst them, have staked out the road that your younger colleagues, Moussu, Lignières, M'Fadyean, Vallée, and my dear collaborator, Guèrin, continue to explore alongside of us. There is still a good deal of road to cover, but it seems that already we may see the goal to be reached glimmering on a less clouded horizon.

Since you have done me the honour to invite me to address this friendly gathering, I have thought that it would not be unpleasing to you if, together, we cast a rapid glance over the more recent stages of the enquiry. They furnish precious teachings from which we shall profit when the question of prophylaxis—human or bovine—comes to be considered.

[After a brief review of the doubts raised by Koch's historical pronouncement at the London Congress in 1901, Dr. Calmette proceeds.]

Many savants, amongst them Chauveau, Nocard, Thomassen, Bang, Arloing, Ravenel, undertook researches the results of which soon steadied us. Not only observations gathered from all sides came to hand to attest the inoculability of bovine tuberculosis to man, but bacteriologists and veterinarians showed that tubercle bacilli of human origin, although relatively less virulent for the ox, is still capable of conveying infection. The bacillus of the ox and that of man are only two distinct races of the same species, and these races are developed by progressive adaptation to different organisms: but their characters are unstable.

Infection.

In human pathology the majority of clinicians consider that most often infection is carried by infected dust taken into the lungs with the air. Since the now ancient experiments of Chauveau (1868) veterinarians have tended to the belief that the digestive tract is chiefly incriminated.

No one denies that, in certain cases, the virus may gain access by the skin, by the pharynx or the larynx, by the genital mucous membrane ,through some pre-existing lesion. But no one, whether veterinarian or medico, would have dared to maintain that pulmonary tuberculosis—so-called primitive—or that the tumefaction, so specific, of the tracheo-bronchials or mediastinals without accompanying pulmonary lesions, could have an intestinal origin!

At the Veterinary Congress at Cassel in Sept., 1903, von Behring gave out the hypothesis that pulmonary tuberculosis of the adult may well be only a slowly developed manifestation of intestinal infection contracted at an early age. He supported this opinion on the frequency of pulmonary lesions amongst adult bovines, whilst the young show only mesenteric lesions.

What value must be put henceforth on those celebrated experiments of Tappeiner, Cornet, Flugge, Cadéac, and especially those of Nocard and Rossignol, in 1900, at Pouilly-le-Fort, under the auspices of the Soc. Vet. Med. Pratique, on the infection of animals by direct inhalation of dry or moist cultures of tubercle bacilli or powdered tuberculous expectorations? It is only possible to come to a decision on the subject by experiments, and with fresh methods, and that is what we have undertaken with Guèrin, at the Lille Pasteur Institute.

We gave, first to young kids and to adult goats, and later to calves and to cows, by means of an œsophageal sound - to avoid any accidental contamination of the upper air passages—a very small quantity of cultures of tubercle bacilli of bovine origin, ground very fine, in milk, or in the products of expectoration. Our animals were invariably infected, and reacted to tuberculin after 25 to 30 days. They were killed at various intervals after *the one infection*, and we found that in the young the the lesions of the mesenteric ganglia were exceedingly intense, and that pulmonary tubercles appeared only after about three months. In adults we scarcely ever found lesions in the ganglions, and pulmonary lesions occurred at once.

In no case did the mucous membrane of the intestine present the slightest lesion.

It appears evident, therefore:—

(1) That we ought not to consider accurate the hypothesis of Behring that "pulmonary tuberculosis in the adult results from the slow development of intestinal infection contracted in early years."

(2) That at any period of life animals may become infected through the intestine.

(3) That in adults, most frequently tubercular infection of intestinal origin becomes localised immediately in the lungs, whilst in young animals it remains for a shorter or longer period located in the mesenteric ganglions.

(To be continued.)

PRESENTATION TO SIR JOHN M'FADYEAN.

At the Royal Veterinary College on Thursday, 28th ult., Sir John M'Fadyean was presented with his portrait —a replica of the portrait to the Royal College of Veterinary Surgeons.

Col. Duck, in making the presentation, said: As Chairman of the Executive Committee the pleasant duty devolves upon me to present this portrait to Sir John M'Fadyean. It is a mark of esteem subscribed for by several hundreds of his professional brethren in recognition of his great services to veterinary science. These services it would be superfluous for me to recapitulate to you, but in addition I venture to voice the opinion of our profession that it is also due to a straightforward hard working life, which has ensured the respect of all with whom he has been brought into contact. I think none will object to my saying that no one in our profession is more respected for his scientific attainments, nor more honoured for his personal worth. And I feel Sir John will appreciate the presentation not so much as a work of art but rather as a token of our appreciation of his scientific work and of general esteem

for an honourable career. In presenting this portrait and cheque for the surplus of the testimonial fund I am sure we all sincerely wish that Sir John may remain with us for many years and enjoy health and prosperity while continuing the work of advancing veterinary science.

Sir JOHN M'FADYEAN said that as any attempt which he might make to express all that he felt at the moment was certain to be futile, he would only say in the fewest possible words that he considered it a very great honour to have his portrait presented to him by so many of his friends in the profession. He hoped and believed that the portrait would be handed down in his family as a valued heirloom, and that in spite of its merits as a work of art it would always be treasured mainly because it was a token of the esteem which he had been fortunate enough to gain from the members of his own profession. He would like to say further that he felt he owed a special debt of gratitude to Colonel Duck for the kind words he had used, and to him and the other members of Committee for all the trouble they had had in connection with the presentation. He was also greatly indebted to the artist, Mr. Coutts Michie, who had spared no pains to make the portrait a good likeness as well as a work of art. Finally, with regard to the cheque which Col. Duck had just handed to him, he would follow the course which he believed would be most in accord with the desires of those who had subscribed to the testimonial, viz., devote the sum to the purchase of something which would further serve to keep him in mind of the great kindness which he had received from them.

VETERINARY MEDICAL ASSOCIATION OF IRELAND.

The annual general meeting took place at the Gresham Hotel, Dublin, on Thursday, 31st January, 1907, at 7.30 p.m. The following members were present: The President, Mr. Jas. McKenny, in the chair, Messrs. M. Hedley, hon. treas., C. Allen, hon. sec., Professors A. E. Mettam, J. J. O'Connor, G. H. Wooldridge, Messrs. B. P. J. Mahony, Maryborough; E. C. Winter, Limerick; P. J. Howard, Ennis; W. Cargill Patrick, W. Purcell, Mullingar; H. W. Robinson, R. B. Freeman, S. Black, Finlay Kerr, L. M. Magee, Navan; W. Chambers, J. A. Jordan, John Holland, Athy; and W. A. Byrne, Roscommon. The following visitors were also present: Messrs. E. J. C. Supple, J. E. Fitzgerald, Wm. T. Ferguson, Jas. Dodd, F. J. Shearman, M. F. O'Sullivan, and J. D. Plunkett.

The following apologised for non-attendance: Messrs. J. Preston, G. Newsom, J. J. Kelly, Col. Hazleton, J. E. Johnston, J. J. Vahey, T. Daly, W. Russell, H. Hannan, Capt. Holmes, S. W. Haffield, J. A. Thompson, J. R. Lewis, J. H. Jones, F. W. Taylor, F. A. Heney, C. J. Clibborn, A. Dobbyn, J. H. Pierse, J. K. Thompson, T. F. O'Donnell, J. Moir, Prof. Dunn, R. W. Flannery, R. Griffin, J. O'Brien, W. P. Cushnahan and Col. Steel.

It was proposed by Mr. Winter, and seconded by Mr. Chambers, and resolved: "that the minutes of the last general meeting be taken as read, as each member had already received a printed copy of same."

Messrs. JOSEPH LYNCH, Ramsgrange, Wexford; REV. T. HUSTON, Armagh; E. DEVINE, Dublin; and J. H. H. PEARD, Ashtown House, Phœnix Park, Dublin, were balloted for and elected members of the Association.

The PRESIDENT informed the members that the following gentlemen were duly nominated for the following positions, and as there was no opposition were elected, viz.:—*President*, Professor A. E. Mettam; *Vice-President*, G. Newsom; *Hon. Sec.*, Jas. M'Kenny; and *Hon. Treas.*, M. Hedley.

Mr. MCKENNY, in vacating the chair in favour of the newly-elected President, returned his hearty thanks to the members for the great kindness and support given to him during his term of office.

Professor METTAM, in taking the chair, thanked the members for the great honour bestowed on him in electing him their President.

REPORT OF COUNCIL.

Mr. President and Gentlemen,—1. The following gentlemen have been nominated to hold office for the ensuing year:—*President*, Prof. A. E. Mettam; *Vice-President*, G. Newsom; *Hon. Treas.*, M. Hedley; and *Hon. Sec.*, James McKenny.

2. At your last meeting you passed the following resolution, viz.:—"That the V.M.A.I. consider it derogatory to the veterinary profession to be asked to tender for veterinary attendance at competitive prices, and that public bodies requiring such attendance be respectfully asked to fix a salary and invite applications for the posts accordingly, and further that members of the professions be asked to abide by the spirit of the resolution.'

Your Council were subsequently informed that the special public body therein referred to was bound by their bye-laws to advertise for veterinary tenders in the manner complained of, it was therefore considered advisable to defer acting on the resolution, and accordingly they decided that circulars be sent to the veterinary profession practising in Dublin, to consider contract fees.

3 In reference to an unqualified person who acted as a veterinary surgeon at an agricultural show, a letter was read from Mr. Thatcher enclosing one from the hon. sec. of the show, stating that the person acted with members of the Royal College of Veterinary Surgeons as honorary veterinary surgeons at the show, the committee who appointed the unqualified person knew nothing of the said person's qualifications." It was resolved to acknowledge Mr. Thatcher's letter and express a hope that something be done in the matter at once.

4. In reference to Parliamentary representation, the following resolutions were received from the Hon. Secretary of the Committee of Ways and Means, and your Council recommend you to adopt same, and that they be sent for publication and be mentioned in the minutes, viz.:—

(1) "That it is desirable that a veterinary surgeon should be returned to the House of Commons."

(2) "That in the opinion of this meeting there are not at present any practical means of obtaining the return of a veterinary surgeon to Parliament, and it is therefore desirable that the Council of the Royal College of Veterinary Surgeons should take the best means at its command to secure indirect representation."

(3) "That an effort be at once made to secure promises of support in writing up to £500, with a view of aiding any prospective member of the profession, approved by the Committee, who may be chosen to contest any constituency."

"It was decided that the various Veterinary Medical Societies be asked to subscribe at least £1 1s. towards the initial expenses of the movement."

5. *Re* the forming of provincial branches of the Association, your Council suggest (1) That the question of holding meetings under the auspices of the V.M.A.I. in other parts of Ireland than Dublin, should be discussed in a small committee, and a written report submitted for the report of a general meeting. (2) That the committee consist of all past and present members of the Council, and that the quorum shall number not less than five members at each meeting held. The President of the Association to act as Chairman.

6. Your Council have under consideration two other cases of complaint of unqualified persons infringing on

the rights of our profession, but it is considered at present not advisable to give fuller information respecting these cases.

7. A letter was considered from a country practitioner enclosing a copy of a newspaper in which a firm of chemists advertised a number of veterinary preparations, and designated themselves "veterinary chemists." The President replied to the letter stating "that the subject matter had been submitted to counsel and cases have been tried where chemists have designated themselves "veterinary chemists," and it was decided that they had a legal right to do so, and similar advertisements have also been submitted to counsel, and their opinion was unfavourable to our interest." Your Council approved of the President's letter.

8. Your President submitted a case of prosecution by the Prevention of Cruelty to Animals Society, in which he was a witness, the Solicitor in the case drew the Magistrate's attention to the fact that on one side there was the evidence of a professional gentleman, and on the other hand there was only the evidence of the officer of the Society, who was a layman. In deciding the case the Magistrate stated "That the evidence of one man was as good as another, be he professional or otherwise." Your Council suggest that a letter be written to Sir John Ross, of Bladensbury, K.C.B., Commissioner of Police, pointing out that the members of the veterinary profession, feel strongly that cases of cruelty to animals, or supposed cruelty should be submitted to a member of the veterinary profession previous to the accused being summoned, in order that there shall be no conflict between professional evidence and that of the police in the event of a prosecution. (Note, in the letter reference should be made to the procedure in London).

9. Mr. Hedley submitted a number of alterations of our rules which we approve.

(10). Your Council draw your attention to the fact that the formal business transactions of the Association occupy more time than they think is necessary, too frequently lengthened discussions take place on subjects which subsequently are submitted to the Council, and consequently the reading of papers and discussions thereon are necessarily curtailed, it has been suggested that papers should be read and discussed, and specimens exhibited and considered, after the reading and signing of minutes: we suggest that your Council fully consider and decide on what steps are desirable to be adopted to prevent in future the recurrence of the above described objections.

11. We are pleased to announce to you that Mr. Allen Baker, M R.C.V.S., Bantry, Co. Tipperary, was awarded the medal of our Association in 1904, Mr. J. C. Clinton, M.R.C.V.S., Dundalk, 1905, and Mr. Adam Hodgins, M.R.C.V.S. Nenagh, in 1906.

12. Owing to Mr. J. J. Fleury, M.R.C.V.S., receiving a foreign appointment, he has applied to be put on the list of corresponding members: we suggest that his request be complied with.

Mr. McKenny proposed, and Mr. Magee seconded, that the subject referring to the meeting of the Dublin practitioners be printed with the report, and mentioned in the minutes.

An amendment was proposed by Mr. Hedley and seconded by Mr. Howard, that the subject be referred to Council for consideration, which was adopted.

Mr. Hedley, Hon. Treas., submitted the balance sheet of the Association for the year ended 1906, which was adopted, a hearty vote of thanks was passed to Mr. Hedley for the manner in which he performed his arduous duties.

Prof. Mettam, having again thanked the Association for the honour of being elected President for the ensuing year, said he wished to make an announcement in which the members would no doubt be interested, and which so far he had not communicated to anyone else outside the profession. The matter was in his opinion one of considerable importance. As they well knew about two years before the cause of human syphilis was described by Schaudinn and a fellow worker, Hoffmann, in Berlin, and then for six months or so numerous papers have appeared in different periodicals in various parts of the world where investigators had discovered that the spirochæte discovered by Schaudinn was present in different lesions of human syphilis, not only in fresh lesions but in old ones, and also in the lesions of children born with syphilis. And since that time other forms of spirochæte had been described—for instance one described as being present in ulcerated carcinomata and spirochæte had also been discovered in certain forms of angina, and in canker and grease in the horse, and doubtless as time went on they should find them in different locations and lesions.

The week before Mr. Allen had sent in to the College Clinique a case of a bitch suffering from one of those tumours known as an infective sarcoma of the vagina. This they all knew—and knew for some time—to be highly infectious; dogs serving bitches with these tumours become infected, and dogs with similar tumours infected bitches that they served. The tumour had been transmitted by inoculation into experimental dogs, but so far as he was aware no one had been able to say what was the infecting agent. Last week the bitch referred to came into the College and was operated upon by Prof. Wooldridge, and the material was brought into the laboratory. He (Prof. Mettam) made smears squeezed from the tumour and, after fixing in the usual way, stained it by the method now generally adopted (Giemsa's method). Examination after staining for 24 hours showed that there were spirochæte there and that they were extremely numerous. He did not care to go so far as to say that these spirochæte were the actual cause of the infection: but the investigation was sufficiently suggestive for him to ask them to send him as opportunity arose material obtained from such cases, so that he might examine to see if he could find spirochæte in other cases or in a large number of those cases. If he or other workers identified these with sufficient frequency then reasoning from analogy the probability was that they were the causal agent of that particular form of infective tumour. He had not been quite satisfied in his own mind, and in order to make the find a certain one he submitted sections to a friend of his in Cambridge, Prof. Nuttall, who is the "Quick" Professor of Biology and who had made a special study of these low organisms, and he had sent him a letter in which he stated that he corroborated the discovery of the presence of spirochæte in the films sent him. The interesting point is that probably the spirochæte passes into the mucous membrane and takes the same course as in human syphilis and dourine in horses. He did not for the present wish to say anything more about the matter, but he had thought it his duty—as it was his pleasure—to make the announcement he had done as to his researches in connection with the presence of spirochæte in diseases of the dog. (Applause.)

CRYPTORCHID CASTRATION.

Discussion on Prof. Craig's paper (already published).

Mr. Cargill Patrick: In opening the discussion on Prof. Craig's paper on "Cryptorchid Castration," intended to have been read at our last meeting, on 28th Nov. I am sure I only voice the feelings of those present when I say we all very much regret that his splendid efforts met with what appeared to be scant courtesy by being left over until the last item on the agenda, and unfortunately we are painfully aware that this also occurred on a previous occasion, but let me assure Prof. Craig that the seeming slight in both instances was wholly due to stress of circumstances. So

much matter had to be brought forward on the last occasion by our more than energetic past President—his usual failing asserting itself I presume of having the last word before his year of office expired—that the scientific side of our calling was neglected for the time being, much to the regret of many who, like myself, had looked forward with interest and pleasure to the hearing of Prof. Craig's paper, as being of sound practical usefulness to the every day practitioner, who is desirous of perfecting himself in the major operations. This is one in which we do not have too many opportunities for rectifying our mistakes in, and a few hints and suggestions are invaluable. The drawings or illustrations which accompany Prof. Craig's paper are an inestimable boon, and go to prove how thorough he has been in his purpose and work. We are very much indebted to him, and trust he may never grow weary of well doing in the interests of this, and kindred Associations, and of his profession. Workers are what is necessary, of which fact he no doubt is well aware.

It is generally agreed that heredity plays an important part in the condition known as cryptorchidism, and one can easily understand why it should be so in cases where the sire has this abnormality present, but I am at a loss to account for the condition being transmitted by the mare unless we are satisfied that it is simply a case of telegony, or it may be atavism as suggested by Prof. Hobday. There is no doubt that disease is sometimes responsible for the condition, as evidenced by those cases where tumours or cysts are found in the testicle. In other cases imperfect development is the cause, though why this particular organ should be affected, is hard to explain. In some instances the testicle is found quite close to its centre of development, the genital ridge, close behind the kidneys, and might be cited as a case of arrested development.

Prof. Craig points out that descent of the gland is sometimes delayed until the third year, which means, of course, that unless there is real urgency for the operation in consequence of the animal's temper or troublesome sexual propensities, it is better to postpone the operation until that time; personally I think it ad-advisable to operate early, if only for economic reasons, for "rigs" nearly always require separate or special treatment in housing, feeding, etc. It is somewhat interesting to hear that spermatozoa abound in the semen of hybrids, but are they perfectly developed or mature specimens, and if so, do they show active movements under the microscope in the fresh state? Without these particulars it is difficult to say why hybrids should be sterile, for all the necessary elements seem to be present.

It is immaterial what method of casting is adopted, the position assumed after tying up is of much more importance, and I consider extension of the limb backwards and tying to a fixed point a decided advantage when operating. Creolin is as good an antiseptic as any for external disinfection, but I prefer Lysol for the hand and arm. Being more or less of a lubricant it certainly facilitates entry into the abdominal cavity when necessary. Here I may mention that when the gland is not high up in the inguinal region my fingers do not seem of much use to me in the way of exploring the internal abdominal ring, whether it is due to inexpertness or short fingers I cannot say, but until my arm has been pushed up into the inguinal canal, I find it impossible to make any headway. Once the abdominal cavity has been opened it is surprising to find, after a good deal of careful yet fruitless searching in the neighbourhood of the inner abdominal ring, on withdrawing the hand the testicle can be secured without further difficulty in some instances. When this has not been the case our best plan is to locate the vas deferens and trace up the missing testicle at once, as the less handling the abdominal organs are subjected to the better, and there is also much less risk of undue dilatation of the parts and subsequent hernia of the bowel.

I am not quite clear what Prof. Craig means when he says the elbow of "the operator is directed towards the pubic symphysis, and the fingers of the same arm point towards the external angle of the ilium of the side operated upon." I would ask him which arm does he use, say for operation through the right inguinal canal, as it is an important point to my mind which arm the operation is performed with. I quite agree with the essayist that we cannot satisfactorily or securely suture the abdominal wound in these cases, and an aseptic plug or pledget is the most useful means at our disposal for that purpose. Bandaging I have never tried, and I very much doubt whether it would be of much use even if I did, unless it were of an adhesive nature, and that I consider is contra-indicated where regular after dressing is necessary. By way of precaution against prolapse of bowel I think it advisable to keep the animal tied up short for at least some hours afterwards, and the hind-quarters higher than the fore hand, as I have known the patient to roll on his back showing colicky symptoms subsequent to operation, with descent or prolapse of bowel appearing soon afterwards, whilst in another prolapse was delayed until a fifth day, where no rolling had taken place. That only goes to prove that no precautions should be neglected, either for the comfort of the patient, success of the operation, or peace of mind to the operator.

I have very much pleasure in thanking Prof. Craig for his kindness in bringing forward such an instructive and useful paper for discussion by the members of this Association.

Mr. WINTER had done a good deal of cryptorchid castration and thought the method of casting had a good deal to do with the success of the operation. He invariably used a rope which was invented by Mr. Donald, of Wigtown, and improved on by himself, and he never had a fracture. The process was very simple, but he could hardly explain it without a demonstration. If he could not find the testicle, in 99 per cent. of cases the chord would be found lying immediately inside the abdominal ring. He used his fingers in operating, and thought the hand and arm should be avoided. He distinctly remembered one case he had where he had been searching for twenty minutes for the testicle in the abdominal cavity, and happening to put his right hand against the horse's hock he found the testicle there inside the skin. He had heard of a similar thing in the case of a boy, when it was close to his knee, but never before in a horse.

As to bandaging after operation—he found bandages for the horse of no practical value at all. He stitched up the internal wound, used a good big pledget of tow or wadding, thoroughly cleansed with antiseptics and fastened up by suturing the skin. Sometimes the bowel might adhere, so it was a very good thing to grease the pad thoroughly. The bowel sometimes came down with the pad, but it was not always possible to suture the wall of the abdomen. He always made it a rule after operating to tie the animal up and have it carefully watched. In nine cases out of ten the operation for cryptorchid castration was a very simple one, the only thing necessary being to look for the cord. He was sorry he had not perused Prof. Craig's paper more closely—he had only read it in the train—but it seemed very useful and instructive.

Mr. MAGEE would like to ask Mr. Winter one question. Was he right in thinking that he had found the testicle in the case he mentioned near the hock—two or three inches above it?

Mr. WINTER: Yes, he was quite right. How it got there he didn't know. It was a very extraordinary case and he thought it should be recorded. As regards cryptorchids and service he knew two or three at stud—

one a double case—and they got the usual proportion of foals, but he could not say whether they were normal.

Mr. BYRNE, referring to the extraordinary case Mr. Winter had mentioned, quoted Shakespeare's line "There are more things in Heaven and Earth, Horatio, than are dreamt of in our philosophy." It was one of the vagaries of nature. He had read Professor Craig's paper more than once, and very carefully, and with great benefit and advantage. He wished to express his obligation to him for the exceedingly thorough way in which he had gone into the whole operation. It was a difficult operation for the ordinary country practitioner. He had been doing "rigs" himself for twenty years, but he would not care in the presence of his friend Mr. Boyle to say how many he had killed. In all cases he had great difficulty in locating the cord and testicle; whether this was due to want of operative skill or not he could not say. When his hand was in the abdominal cavity he really could not be sure what he was feeling beyond the liver and kidneys. Prof. Craig had very graphically described the manner in which you should localise the cord, follow it up, and find the testicle, but in his cases it was not so easy. He had often spent an hour trying to find the testicle until his patience was exhausted and his arm paralysed, and in the end it would drop into his fingers without any volition on his part. His experience was that very often the testicle slipped into one's hand almost unconsciously, and without any possibility of the operator tracing it from the surgical landmarks in the abdominal cavity. He would like to say in reference to casting for the operation that, with Mr. Winter, he always used a rope, and he never proceeded to extend the legs until the animal was under chloroform. He turned the horse on his back and put a wad of hay on each side. He did not attach so much importance to the seat of incision as Prof. Craig seemed to do, and as the result of his experience he was inclined to think that they perhaps made a mistake in performing the operation through the inguinal canal if they were able to satisfy themselves that the testicle was not there. Prof. Craig had explained the various structures, vessels, and so on that pass through the inguinal canal, and he favoured the Danish method when the incision was made on one side. The danger of prolapse of the bowel was not really so great as it would be if the operation were done through the inguinal canal. He had a case of cryptorchid castration that year which unfortunately he undertook all by himself. Had the animal chloroformed and operated but could not find the testicle; and he had both hands in the abdominal cavity for the best part of two hours. He tried to persuade his employer that there was no testicle, and he was confirmed in his belief by the fact that the horse had not shown very strong stallion proclivities and never given much trouble. The owner was in a position to make an affidavit that only one testicle had been removed. The horse made an uninterrupted recovery and was not an hour sick. He had had a good many deaths in connection with these castration operations, notwithstanding every possible antiseptic precaution. For a beginner it was not at all so easy to localise the inguinal canal as one might gather from Prof. Craig's paper. A friend of his had a very troublesome "rig," and an experienced veterinary surgeon and he went down to see him, and after operating they came to the conclusion that there was no inguinal canal at all. He merely mentioned that to show to a beginner that it is not so easy to localise it. He would not like to go the length of saying that there was no such thing in existence—but it was difficult to locate. He desired to express his best thanks to Prof. Craig for his splendid paper which showed on every page a thoroughness which he would like to follow, and which every member of the profession would do well to imitate.

Mr. MAHONY had not had time to carefully read the paper itself giving details of the operation, but he could gather from the member's discussion that it must have been an able one. As a country practitioner he might say he had come across a good many of those cryptorchids, and could agree that it was very easy sometimes to find the testicle, but is often times very difficult—in fact on one occasion it took him an hour to locate. On another occasion he had a double cryptorchid case to deal with and was lucky in easily getting the first testicle which was of abnormal size. He searched for the other for a long time without success, bringing out the bowel to the wound opening, but after about half an hour he found it, and it also was of abnormal size. The animal made a good recovery. He did the case, including the chloroforming, by himself. He remembered another case—also a double one—which showed the necessity for careful after treatment. Operation passed off all right and the horse was making a good recovery, but going out of the stable one day five or six days afterwards he lost his footing and slipped. The bowel came down and he got peritonitis and died. It showed that some time must elapse before you can give the horse his liberty. As regards antiseptics he invariably himself found eucalyptus oil very good, and when the operation has been performed he merely sewed up the wound by interrupted sutures and got the place cleaned, never interfering again except to put a stitch below the discharge.

Mr. WINTER recalled two further cases—one occurring in Ennis. The owner said he had a "rig" with one stone left—he himself having taken out the other. Well, he operated and took out two. He gave the two to the owner's son telling him to take them home to his father. The latter swore he had removed one himself. It must, however, have been a gland in the scrotum. When you find a hidden testicle this gland was generally enlarged. The other case was a cryptorchid, in which he thought the testicle was not in the horse at all, but unfortunately on post-mortem examination he found it was lying in the peritoneum behind the kidney, the other had been previously taken out. He thought they could find a testicle in almost any situation, but the case of the three testicles was certainly a peculiar one.

Mr. HOWARD added his *quota* of thanks to Prof. Craig for his splendid paper. He had some experience of these cryptorchid castrations and had recently done two cases, in which he made the opening beside the abdominal ring. He made a clean incision, and found afterwards it was much easier to stitch up the wound, the two cases doing remarkably well. In operating through the abdominal ring there was a lot of what he would call "rooting." As Mr. Byrne had explained he found it was not always an easy matter to find the cord or testicle, because one was more or less in the dark. Mr. Magee seemed to think Mr. Winter's case of finding the testicle above the hock a very extraordinary one, he presumed Mr. Winter meant it was found somewhere in the thigh; and he himself had also found such a case—a fully developed testicle in the thick of the thigh.

As regards the fertility of cryptorchids, he knew of a horse at the present time which had been some years at the stud and was looked on as a most fertile sire, and he had only one descended testicle. That testicle had since been removed, and the horse was in possession of the other one. He would be very happy to give Prof. Craig an opportunity of looking for it as the horse was in his (Mr. Howard's) possession now. He recalled a peculiar case of a "rig," one testicle having been removed by a veterinary surgeon in this county. He happened to be in that part of the country afterwards and bought the horse, which at that time was very contankerous, Put him to harness but he gave a good deal of trouble when brought into the company of other

horses—and this went on for some time. But for the past three years he had shown no stallion propensities. Another point occurred to him—it was not any more extraordinary for a testicle to be found in the thigh than for a tooth to be found in a testicle—an experience he himself had on one occasion.

Prof. O'CONNOR thanked the essayist for his very instructive paper on an interesting and important subject. His description of the anatomical details of the seat of operation and his beautiful plates would repay careful study. Anyone well acquainted with the anatomy of the part to be dealt with would operate with confidence—and without confidence the operator had little chance of success.

In treating of the anatomy and development of the testicles and their anomalies Prof. Craig might, if possible, have told them something about the rare cases, said to have been met with of the anorchid in which one or both testicles are absent, and of the polyorchid in which more than two testicles are present. They knew that the testicle, epididymis, vas deferens and vesiculæ seminales developed separately, and that one or all of these organs might be absent. The case of an abdominal testicle without a cord would be very difficult to deal with.

With regard to the preparation of the subject for operation he would not like to operate on an animal in poor condition, he would prefer him to be in hard robust condition. A very important point of course was having the abdominal contents reduced in bulk as much as possible previous to the operation, which could be obtained by keeping the animal on a reduced concentrated diet for a couple of days. Absolute starvation was not necessary nor indeed advisable. In addition to the instruments mentioned by Prof. Craig it would be well to be provided with a perforator, or blunt seton needle, to perforate the abdominal wall, as pressure with the finger sometimes causes the peritoneum to separate from the underlying tissue; also a long fine trocar and canula or aspirator to evacuate a cystic testicle, and a long handled forceps to act as a dilator of the abdominal opening. When the hand is inserted in the abdominal cavity care should be taken not to allow the arm to lean on the inner commissure of the canal, where the tissue is weak, for fear of causing a too large opening. With the hand in the abdominal cavity there is not much difficulty in finding the upper surface of the neck of the bladder, where in the majority of cases the cord can be easily picked up. The method of fixing the subject is of great importance. With the animal on his back it is not only necessary to have the hind legs well apart, the hocks must also be well flexed. If they are extended and drawn forward, as is the case when the horse is cast in the ordinary way with ropes or hobbles and back strap fixed to the cannon bones, they press upon the inguinal canal and interfere considerably with its exploration. Donald's method, or a modification of it, is a good one. Another good plan is to cast the horse with hobbles, fix a cotton rope to each hind pastern, cross the two ropes under the croup, slacken the chain of the hobbles by putting the dresser to the rope, have the two ropes pulled tightly, take the one from the right side up on the left side, bring it behind and inside the hock and hitch it on to the left pastern and fix the other one similary on the other side. This leaves the inguinal canal quite free and permits of its complete dilatation. If the whole hand has been introduced into the abdomen a plug of aseptic gauze or cotton wool should afterwards be inserted in the lower part of the inguinal canal and maintained in position by sutures to insure against prolapse of the bowels. It should not be pushed to the upper part of the canal, as it would then prevent the valve-like closure of the abdominal opening. It might be left in position for two or three days. He had a case where it had been left in contrary to instructions for a week, with good results. He again thanked Prof. Craig for his able and interesting paper.

Prof. WOOLDRIDGE would like to endorse some of the remarks that had fallen from previous speakers. With regard to the antiseptics, he agreed with Mr. Patrick that lysol was perhaps about the best. There was no better as far as germicidal properties went and it acted as a lubricant. By its use it was much easier to manipulate one's hand in the inguinal canal for instance. With regard to casting, there must always be some differences of opinion as to the best way. The method he usually adopted was almost like that referred to by Prof. O'Connor. He preferred two ropes for spreading the legs, but instead of attaching them to the pasterns, as Prof. O'Connor does, he preferred to attach them one to each cannon bone, and then to draw very tightly and tie again to the cannon of the opposite side. By that means, and especially if you slackened the hobble chain a little, you spread out the hocks and thighs, and you had not the rope going round the hock and getting in your way. He saw Cadiot perform the operation at Alfort. He cast with hobbles and took the hind foot of the side on which he was operating out of the hobble and fully extended it backwards, thus clearly exposing the site of operation. In his case he employed the Danish method instead of adopting the Belgian, and it appeared to work very easily. He made an incision through the muscle of the abdominal wall about four inches long, and of course then he had no difficulty whatever in inserting his hand. It must have been a fairly easy case for the testicle was out in a moment almost, three or four sutures inserted, and the horse was allowed to rise quickly. Cadiot's method of operating certainly seemed the more expeditious. He (Prof. Wooldridge) operated through the inguinal canal, because here you have a natural orifice, and he preferred not to make artificial openings when you had a channel like that to operate through which would afterwards contract and become normal. Prof. Craig appeared to prefer operating on the two sides in case of a double cryptorchid; that of course was entirely a matter of choice, and for his own part he did not see any necessity to make two wounds unless you had the testicle on the two sides in the inguinal canal, if not then he maintained that one operation wound should be sufficient. The last "rig" that he castrated was a double cryptorchid, and as luck would have it it was the only fatal one. In that particular case it was driven home to him very strongly that it was not always such an easy matter to find the vas deferens or the cord when the hand was inside. He found the first testicle in the usual manner and with comparative ease, but when he came to search for the second he met with difficulty. It turned out to be about the size of a hazel nut, and as he passed his hand along the vas deferens it slipped through his fingers without his appreciating the fact of its existence there. He closed up the cavity, but unfortunately during the night a prolapse occurred, and the horse died. Probably had there been a fairly large plug he might have been saved. The plug he preferred was not of tow or cotton wool but a small towel about the size of a stable rubber, inserted into the scrotum but not pushed up into the inguinal canal. It should be first boiled and then saturated with solution of carbolic acid. He agreed with Mr. Winter that bandages were absolutely useless. The point which Mr. Patrick referred to as having appeared in the previous week's issue of *The Veterinary Record* also struck him at the time, namely, that ninety testicles had been examined by Nielsen, and in no instance had he discovered spermatozoa. That was not exactly in agreement with his (Prof. Wooldridge's) experience. He had only examined about a

dozen inguinal and abdominal testicles and was able to demonstrate spermatozoa in one abdominal testicle which weighed 3½ oz.

He had not yet seen a case such as that referred to by Mr. Winter of a testicle found in the leg of a horse, but he had seen a similar case in a dog, when it was in the skin of the thigh. He again begged to thank Prof. Craig for the skill and care he had expended in the preparation of his paper. (Applause).

Mr. MAGEE said he had had experience of the operation under discussion, and they would be glad to hear that he had never had a death. However, he had better confess that he had only performed it once (Laughter). The subject was a shire colt, two years old, and the case was perhaps of some interest. The animal was unusually big and very wicked, not having been handled since the first testicle was removed, a year before. He gave considerable trouble before being led to the field, and then objected in a most emphatic manner to the application of the side lines. He then decided to chloroform him standing, and having been lucky enough to get on the muzzle without much trouble, gave him two ounces straight away, and sent him round in a circle. As soon as he was intoxicated, the ropes were applied and he was cast without the slightest trouble and without a struggle. He then found the operation was a very simple one as the testicle could be felt distinctly, partly in the inguinal canal and partly in the scrotum. However, the owner thought it a wonderful performance. He might remark that with regard to administering chloroform standing he had done his last seven or eight cases of castration in the above manner, and had found it most satisfactory, besides making an excellent impression on the owners. In that way he had been able to castrate two year colts with only three men to assist him. With regard to anatomy, speaking generally of course, one could not know too much, but at the same time he hardly thought it was absolutely necessary for the successful performance of the operation to know as much of the anatomy of the part as Prof. Craig had got into his paper. He felt sure that Farmer Miles, who was an admitted authority on the operation, knew very little of the anatomy beyond a few generalities, and yet he was most successful. He thought it was a case in which practice and experience were of much greater importance than a knowledge of anatomy and theory.

Regarding the sequelæ of the operation, he would like to ask Prof. Craig's advice on a point. He once assisted at a castration, after which the bowel came down in a large bunch about the size of a football. The animal was cast and chloroformed, but it was found impossible to return the bowel as it was very tympanitic, and the animal died. Thinking over it since he wondered if an opening had been made through the abdominal wall and the hand introduced and an attempt made to pull back the bowel into the abdominal cavity, if that would have succeeded. He would like Prof. Craig's opinion on the matter. He was glad to have an opportunity of congratulating the essayist on his instructive paper.

Mr. M'KENNY stated he was astonished that Mr. Patrick had thought fit to open the discussion by making the unnecessary, unkind personal statement, that unavoidably Prof. Craig's paper could not be read on account of so much matter that had to be brought forward by their more than energetic past President, his usual failing asserting itself of having the last word. It is the introduction of such personal remarks that too frequently unprofitably occupies the time of these and other meetings. The subject of scientific knowledge *versus* practical experience was again raised by a remark coming from Prof. O'Connor, stating that anyone acquainted with the anatomy of the parts to be dealt with would operate with confidence. At a meeting such as the present one (an assembly of veterinarians) all of them had a knowledge of anatomy, but it did not follow that the best book anatomist would be the best surgeon. Although a good surgeon must know his anatomy in a practical fashion, yet he might not be able to pass a comparatively simple examination in it. A good surgeon requires much more than a thorough knowledge of anatomy, and indeed if he has not got the other requisites the more he knows of anatomy the more certain it is that he prefers to teach others anatomy and how to perform operations than to operate himself.

It is remarkable that Prof. Wooldridge, who spoke immediately after Prof. O'Connor, stated that in operations on a cryptorchid it was not an easy matter to find the vas deferens, in fact it was very difficult and sometimes impossible; this statement, and all those given that evening on the subject, are to a considerable extent opposed to Prof. O'Connor's statement. The fact is in this operation we have to find and remove an organ that is not in its correct anatomical position, and in a great many other operations we find similar difficulties due to morbid changes, thus it is shown that one ounce of practical experience is worth a pound of book knowledge. In Mr. M'Kenny's opinion an inexperienced practitioner, if he reads Prof. Craig's paper, immediately before operating on a cryptorchid he will be in a blue funk long before the horse is well tied up for him to operate on. In saying this he does not for a moment intend to depreciate the value of the paper, but merely to explain that at the time of operation we want our thoughts concentrated on a few special points of anatomy and not to have our attention distracted by thinking of arteries, veins, nerves, bones, muscles, etc., of surrounding parts. Such thoughts are as deleterious to an operator as his anticipating the results if the operation should be unsuccessful. These are matters deserving our serious consideration, but at the time of operating we should as much as possible dismiss them from our minds. Mr. Winter stated that he had removed the testes from a double cryptorchid, and that the horse was a most fruitful sire. Many doubt that double cryptorchids are fruitful, but when such animals are castrated it is generally believed that it is impossible for them even to copulate, and Mr. Winter has not informed them whether the referred to horse was at stud before or after he had operated on him (Laughter). Of course, he might have thought it unnecessary to give the information, however, little importance can be attached to such apparently carelessly made statements, but they go to show how careful we should be in accepting as facts some of the extraordinary cases so frequently reported. The same gentleman related another case where he had been 20 minutes searching in the abdominal cavity for a testicle, but accidentally discovered it near the hock. So far as candour is concerned, such an admission of Mr. Winter reflects much credit on him, but from a surgeon's point of view he was much at fault, firstly he should have seen the enlargement on the hock and examined it previous to operating, and secondly he should not have, accidentally or otherwise, when performing an abdominal operation, put his hand on the hock, which no doubt would not have been properly asepticised. It is a great pity that such interesting cases should be reported in a manner calculated to lessen their importance. In Prof. Craig's paper it is stated that in the semen of cryptorchids a large number of spermatozoa are found. This statement is contrary to the experience of some eminent bacteriologists; again, he states that the time of the year for operation makes little difference in the success of the operation, and that it is more successful to operate on animals when in poor condition.

Mr. M'Kenny does not agree with either of these statements, in the first case during the spring months the parts to be operated on are more vascular than at other periods of the year, and tetanus is more prevalent, therefore any other season is preferable; and horses in good hard condition are able to stand the operation

much better than when they are poor and weak. It is also stated in the paper that as a means of distinguishing cryytorchids from geldings, in the latter there is a depression produced by traction of the spermatic cord upon the skin to which it has become attached, therefore as a rule the remains of the spermatic cord may be traced from the cicatrix to the external abdominal ring. Mr. M'Kenny takes particular care that this does not occur, and to prevent it always puts back the spermatic cord, indeed when this is not done in his opinion proper precautions have not been taken to prevent schirrous cord.

Mr. M'Kenny thanked Professor Craig for his very interesting paper and was sure he was satisfied with the debate on it, many of the points he had intended to speak on had already been referred to, therefore he would not take up any further time of the meeting.

Mr. HOLLAND cited the case of a thoroughbred stallion in his district with only one testicle down, and he never had one produce like him.

Prof. METTAM had been greatly pleased with the discussion which was a real good one all round, and very valuable experiences have been related. He himself looking at it from a pathological standpoint had enjoyed the discussion very much indeed. As regards the normal position of a testis, of course they knew it was occasionally found outside the trunk: he believed he was correct in saying that it was not an uncommon thing even in cattle to find the testis wandering considerably from the scrotum; and he thought some of them must have come across cases where the testis has been found under the skin of the abdomen. In dogs it is sometimes found at the side of the prepuce. Not infrequently when the testes were found in these abnormal positions they were sarcomatous. Prof. O'Connor had referred to polyorchids. Some time ago he read in a French journal (*Recueil de Médecine Vétérinaire*) published in connection with the Alfort School, an account of a case of three testes in a horse.

Mr. HOWARD said he would like to have one little point cleared up by Prof. Craig. All the men attached to the Veterinary College seemed to recommend the use of hobbles in casting animals. They (the country practitioners) were referring more particularly to untrained animals, and with untrained animals he could not possibly recommend the use of hobbles.

Prof. WOOLDRIDGE said he had in his mind only animals easily handled when he recommended the use of hobbles. He much preferred side lines for other cases, and always recommended them to the student. In his experience most rigs had been well handled before he was asked to operate.

Prof. O'CONNOR did not recommend hobbles except for horses that had been worked. For untrained horses he preferred the long ropes such as Mr. Donald uses.

Prof. CRAIG was very glad that the paper which he had presented to them had stimulated such a good discussion, and it was flattering to him that such a reception had been given to it. It was the best way in which he could be repaid for any little trouble he had taken. His chief reason for writing the paper was to produce discussion, and he certainly thought he had succeeded. As regards the criticisms passed by the various speakers he would endeavour to reply in nearly the same order as they were uttered.

He noticed that in one or two points Mr. Magee was inclined to agree with Mr. M'Kenny, more especially in the matter of the value of a knowledge of anatomy His (Prof. Craig's) idea of anatomy was not that it merely meant a familiarity with terms or a knowledge of the the names given to various structures and organs in the body. Names were only a useful medium for conveying information from one person to another. One of the chief services which anatomy rendered was to familiarise the students and surgeon with the various structures, to be met with in the various operations, practical anatomy in the dissecting room was that which would be of most advantage. He contended that students should pay less attention to book-lore than to the practical use of the knife and training of the hands and eyes in the dissecting room during their college career. A misconception in this regard often arose when practitioners referred to their experience of a study of the subject during college life, and he wished to dispel this wrong idea from their minds.

With respect to the case referred to where the bowel came down and the animal died—he thought the outer opening of the inguinal canal showed should have been enlarged and the bowel returned by manipulation through the rectum at the internal abdominal ring as well as from the outside. If there had been tympany the bowel might have been punctured in order to decrease its size and permit of an easier reduction of the hernia.

He thanked Mr. Patrick, who very kindly opened the discussion, for the nice things he said about the paper and his plates. Probably atavism was, as suggested, the true explanation of the cryptorchids coming as the progeny of the same mare out of different normal sires. He did not know any means of distinguishing the spermatozoa of hybrids from those which are fertile. Of the 90 cases recorded as having been examined by Neilsen he was not sure but he suspected that the testicles were taken from abdominal cryptorchids. He considered that as a rule abdominal testicles had very badly developed semeniferous tubules: they did not generally contain spermatozoa, but it was remarkable that so many should have been examined *seriatim* without spermatozoa being found in any of them.

With reference to the method of inserting the hand in the inguinal canal (referred to by Mr. Winter), when an animal was on his back the hand of the opposite side was used, the elbow being directed towards the middle line and the fingers of the hand towards the internal angle of the ilium. He was very glad the paper had induced Mr. Winter to draw upon his personal experience and relate the interesting cases he had described for them. The abnormally situated testicle near the hock he spoke of probably had developed from the genital ridge, passed down through the femoral ring and descended thence to the inner side of the thigh or leg. He thought that the explanation of the polyorchid case with three testicles was that one of the so-called "testicles" the "extra testicle" was probably a lymphatic gland from the superficial inguinal group. Another point to which he thought a great deal of attention should be paid was the care which they should take in opening into the abdominal cavity. The smaller the opening through the internal abdominal ring the better, if the testicle can be reached in the neighbourhood. That precaution will prevent the descent of the bowel or lessen very much the chance of its descending.

Mr. Byrne had mentioned some cases in which the external abdominal ring had not been easily manipulated. It might be that the conformation of the animal did not allow him to pass his fingers into the opening, and probably there was a lot of fibro-elastic tissue present. The position of the inguinal canal should be easily identified from the guide lines he had given in his paper. Mr. Byrne had referred to the organ to be found in the internal abdominal ring, and said that he was unable to identify any of them except the liver and kidneys. Well he (Prof. Craig) didn't know how far he had passed the hand into the abdomen, but it must have been a very long way if he ever reached the liver, and it would only be in a very few instances that he would reach the kidneys from the internal ring. It was all the more reason when he expresses such statements that he should refer again to his anatomy and learn the

structures which are placed in the abdominal ring and pelvis. If he did as suggested he would be even more successful in the future than he had been in the past. No doubt there was a certain element of luck in dealing with cryptorchids—that is to say, the position of the testicles was not constant: that was a point of common knowledge, and one which must affect not only the man who does not know his anatomy, but the man who does. The testicles were the only inconstant structures, and if one were familiar with the other structures concerned and their relative positions, and knew the position in which the testicles were likely to be found, it stood to reason that the man who knew his anatomy thoroughly should find them sooner than one who was ignorant of it. Mr. Byrne said the landmarks which were given were not of much value, and yet he paid him (Prof. Craig) the compliment of saying that he had derived much benefit from a perusal of his paper. He hoped the latter was the correct version of his experience.

Mr. BYRNE said he thought absolute reliance in surgical landmarks was impossible when the hand was in the abdomen, and for a student to be told that they were absolute guides was fallacious and misleading.

Prof. CRAIG entirely agreed with the statement just made, but he did not think notwithstanding that it belittled in any way the value of a good knowledge of anatomy. Again, he referred to the Danish method of operating, and said that in future cases he would prefer to adopt it, thinking it would be more advisable. He differed from him in that view, though he was aware Cadiot recommended it, and said he had been successful with it. Taking into account the methods adopted in this country, means of casting, and after treatment he (Prof. Craig) thought the Belgian method preferable, and for the following reasons. The opening through the internal abdominal oblique muscle made in the Danish method was one which predisposed to prolapse of the bowel much more than in the case of that carefully done through the inguinal canal. In the Belgian canal method the inguinal canal was closed after the operation by the backward pressure of the abdominal contents.

Prof. METTAM asked what was the difference as regards the percentage of herniae of the bowel succeeding operation in the Danish as compared with the Belgian method?

Prof. CRAIG said he had no satistics on that point except those given by Cadiot, and with him the percentage was the same. His were the only cases he had seen fully recorded, and that was the reason he had referred to him as the exponent of the method of operating through the internal abdominal ring. The other men did not give statistics, but were rather inclined to recommend the other method. Mr. Mahony referred to an operation he had performed on a double cryptorchid and he was rather glad to hear there had been no bad results from his operating from one side. In some cases only the testicles are near the internal abdominal ring, but when it became necessary to pass the hand and arm the ring was very much enlarged, and the descent of the bowel was facilitated. That would be avoided by operating from both sides at the one operation; or if it was difficult to find the first testicle, then it might be advisable to operate on the opposite side on a future occasion when the first wound had healed up. The emphasis laid on the danger of the descent of the bowel for a few days after operating conveyed a warning, and he thought that great attention should be paid to the care of the animal for some time succeeding an operation of that sort because of the risk that might arise from any undue effort or violence causing a rupture of the new cicatricial tissue formed at the wound.

Mr. HOWARD was glad to hear stress laid on that particular matter. Reference had been made later to the use of hobbles. He (Mr. Howard) referred to their use in connection with the older animals; in their case he would rather cast with hobbles than with lines, because with the latter he thought the chances of fracture were greater. He had the misfortune on one occasion to see a fracture caused to an aged horse put down with side-lines.

Prof. CRAIG said he had been accused by Prof. O'Connor with having some omissions in his paper. Well, he had to keep the paper within reasonable bounds, and he avoided referring to too many exceptional cases such as monorchids. Probably in these cases the two testicles were at first developed, but one of them degenerated. Evidence of that had been given in the case referred to by Prof. Wooldridge, in which one of the testicles was almost a negligible quantity. With regard to paly-orchids he thought that a great many of the cases described were similar to the one recorded by Mr. Winter. As to operating on an animal in poor condition he did not mean one that was enfeebled, he meant one that had not too much fat upon it. A lean animal was not necessarily an infebeled one, and as a rule the less adipose tissue there is in an animal, *i.e.* in perfect health, the better he will undergo the operation. An animal in hard working condition would be well able to stand an anæsthetic. Emphasis had been laid on the danger of enlarging the internal ring. Now that only repeated what he had said, the greater the care that was taken in keeping the wound as small as possible the better the results that would follow. Prof. Wooldridge proposed lysol in his operation. He (Prof. Craig) thought lysol a very good agent, especially where you have to operate on an abdominal cryptorchid. He referred to the two methods of operating employed and spoke of two well-known operators. To his mind it was the operator he was admiring rather than the operation. Mr. McKenny in his criticism had thought that the recommendations of one speaker had been contradicted by another. One gentleman had said that it would be much easier to operate, and the operator would be more confident if his knowledge of anatomy were accurate; whereas another had said it was not easy to find the vas deferens or structures in the pelvis. That Mr. McKenny took to mean that the two speakers were opposed to one another, which as a matter of fact it only indicated that although the knowledge of anatomy may be complete some difficulty will be met with in this particular operation. It did not show, as Mr. McKenny inferred, that a primary knowledge of anatomy was of little service.

Mr. MCKENNY repeated his view that at the actual time of operating practical knowledge and dexterity were more necessary than the most complete theoretical acquaintance with anatomy.

Prof. CRAIG said the next argument of Mr. McKenny was that a young operator after reading his (Prof. Craig's) paper would be too nervous to be sucessful. Well, if he were so, he didn't know what would be his condition were he to prepare to operate without any knowledge of what he was about to do beyond the mere fact that he had to remove one or two testicles which could not be manipulated from the outside.

Mr. MCKENNY had, when serving his apprenticeship, derived much profit from watching skilled operators and imitating their methods.

Prof. CRAIG pointed out that as a matter of fact the only thing an observer saw was the skin incision and the testicle being brought out. If a man only saw that, how was he going to operate? Farmer Miles knew a great deal more of anatomy than some people gave him credit for, although he was supposed to be ignorant of veterinary science. It only led him back to his previous statement that anatomy did not consist of a number of words or letters; these were only the means of conveying knowledge. An accurate knowledge of anatomy, as he meant it, was to be obtained only as the result of observation and experience with the knife, and the more

practical knowledge a man had of anatomy the better able is he to operate. Another point arose as to the attachment of the spermatic cord to the skin in the gelding, Mr. McKenny said it never occurred in his cases. He did not know whether any of the animals Mr. McKenny operated on ever reached the College, but he knew that in all the cases he had examined in that institution there always had been an attachment of that cord to the skin, and that was why he had referred to it. The attachment took place, no doubt, after the outer skin wound had apparently healed. As for the scirrhous cord forming as the result of improper treatment—the fault did not lie with the operator but with the people who had to deal with the animal after the operation had been performed. Again, Mr. McKenny, referring to the time when the operation should be performed, said the spring months were unsuitable owing to the excitement of the animal: the reason for the conclusion was not, however, apparent to him. It was just because of the excitement that they performed the operation. The animal became unmanageable, and the sooner it was operated on the better. Of course, what applied to cryptorchids would apply equally as well to ordinary colts. He thought there were no other points to which he need reply, and concluded by again thanking them for the very kind manner in which his paper had been received.

Prof. METTAM said the thanks of the Association were due to the essayist for his splendid paper, and also to Mr. Patrick, who kindly opened the discussion, and to the speakers who followed. The Secretary had reminded him that they required a paper for their next meeting, and perhaps some of them might suggest a title. The matter was left over for the Council to deal with.

Mr. HEDLEY begged to inform them that Mr. Thompson had been good enough to forward for the consideration of the Council a copy or the Armagh District Council's new Bill, in which reference was made to veterinary surgeons, and in which there were points which might require deliberation. He moved that it be referred to the Council to deal with. Mr. Chambers seconded.—Carried.

On the proposition of Mr. Hedley, a hearty vote of thanks was passed to the President (Prof. Mettam) for his dignified conduct in the chair.

[The manuscript of this report is indistinct, and in some places illegible. The printing in those places is mere guesswork].

SCOTTISH METROPOLITAN VETERINARY MEDICAL SOCIETY.

The annual meeting of the Scottish Metropolitan Veterinary Medical Society was held in the Royal British Hotel, Edinburgh on Wednesday 30th January. There were present: The President, Mr. J. W. M'Intosh in the chair; Messrs. Rutherford, Peddie, Baird, J. Aitken, Thomson, Henderson, Riddoch, Andrew Reid, Wilson, Connochie, Cameron senr., McLaren and Hutton, Captain Rudd, Professors Dewar and Bradley, the Secretary and one visitor, Mr. Robert Reid, Cupar.

The SECRETARY (Professor Gofton) intimated that letters and telegrams of apology had been received from Messrs. Cunningham, Storie, J. Aitkin junr., William Lothian, and Anderson.

The minutes of the previous meeting having been read and approved, the following correspondence was read:—

A communication from the Secretary of the Parliamentary Representation Committee enclosing a copy of the resolutions passed at a meeting of the Committee held on 3rd October 1906.

The CHAIRMAN remarked that a similar communication had been discussed at a former meeting, and it was then decided that the letter be allowed to be on the table.

MR. RUTHERFORD proposed that the same course be taken with the letter.

Mr. CAMERON, (Berwick-on-Tweed) dissented and moved that the Society give a further expression of opinion on the question of Parliamentary Representation but his motion was not seconded and the letter was accordingly allowed to lie on the table.

A letter from Mr. Clark, Cupar Angus, resigning his membership of the Society.

The CHAIRMAN said they all regretted very much that Mr. Clark was unable to attend through illness, and that he considered it necessary to withdraw from the association of which he had been a member for some considerable time. He proposed that the Secretary should convey to Mr. Clark an expression of their sympathy, with the hope that he might be restored again completely to health.

MR. CAMERON: It is a common thing in various bodies to ask a member to reconsider his withdrawal. I would be exceeding sorry to think that the Association, with which Mr. Clark has been so long prominently connected as a member, should allow that connection to cease. I think we should ask Mr. Clark to continue his membership, even although he is only able to attend the meetings occasionally.

MR. RUTHEREORD said he agreed very readily with what Mr. Cameron had said. Mr. Clark was now recovering and although not yet able to leave his room, they hoped he would soon be restored to health so far that while he might not be strong enough to undertake the heavier portions of his work, he would still be spared for many years to come.

It was accordingly resolved to send to Mr. Clark an expression of the sympathy of the Association, with the request that he should reconsider his decision.

A communication from the Royal Institute of Public Health inviting the Society to send delegates to the Isle of Man Congress.

MR. RUTHERFORD pointed out that if the Society sent a delegate as a member of the conference, they would have a guinea to pay, and in addition the expenses of the delegate. He doubted if the Society conld afford the expense, and he moved that the letter be acknowledged and allowed to lie on the table. Principal Dewar and Mr. Peddie supported Mr. Rutherford's motion which was agreed to.

FINANCE.

The SECRETARY submitted the statement of accounts showing a balance in hand of over £7, an increase of £3 compared with the previous year.

The CHAIRMAN remarked that it was very satisfactory to find the funds of the Society increasing, and the accounts were approved on the motion of Professor Dewar.

The SECRETARY submitted the rules of the Society as revised by the Committee. He said they had been before the last meeting when any objection to them had been withdrawn. The rules were adopted on the motion of Mr. Rutherford and it was agreed that they be printed and a copy supplied to each member.

The SECRETARY intimated that since he had taken over the books of the Society he had found that a number of the members who were on the roll were very considerably in arrears with their subscriptions, and he thought a small committee should be appointed to revise the list of members. Mr. McIntosh had made a special effort when he was Secretary to get in these arrears, and it seemed scarcely worth his (the Secretary's) while going over the same ground again.

The PRESIDENT proposed that the matter be remitted to a small committee, with instructions to try if possible to collect the arrears, failing which he suggested they should delete the names. Professor Dewar and Mr. Peddie supported this motion.

Mr. RUTHERFORD opposed the motion. He thought no good would result from appointing a committee. He was prepared to give notice of motion for next meeting that it be a rule of the Society that if a member allowed his subscription to run out for five years he should be considered non-effective and be written off the membership.

Mr. Rutherford received no support and the matter was remitted to a committee consisting of the President, Messrs. Baird, Bradley, and the Secretary.

Messrs. P. WILSON, Lanark, and D. MACFARLANE, Doune, were elected members of the Society.

Mr. ROBERT REID, Cupar, Mr. DAVID REID, Auchtermuchty, were nominated as members by Prof. Dewar, and Mr. WM. NAIRN, Blairgowrie, by the President.

PRESIDENTIAL ADDRESS.

J. W. M'INTOSH, M.R.C.V.S, Dalkeith.

Gentlemen,—Allow me in the first place to thank you heartily for the honour you have done me in raising me to the position of president of this important Association. It will be my earnest endeavour to emulate the honourable and able men who occupied this chair in the past. I hope I may be able in some small way to merit your confidence and support. I congratulate you, and myself as well, on the wisdom of the rule which restrains a president from making any lengthy observations. I will to-day adhere to that rule and be very short.

At the present time the veterinary profession may be considered in a fairly healthy condition, yet there are one or two matters of a controversial character which I would like very briefly to refer to. The first, and one which affects us very nearly in this great educational centre, is the Edinburgh University Ordinance for establishing Degrees in Veterinary Science. Now I think we are all agreed that a University degree, securing higher recognition, while conserving the rights and privileges of the Royal College of Veterinary Surgeons, is a most desirable object, and one which will undoubtedly give a practitioner a distinct advantage in the eyes of the public. I daresay all of you have already observed the report of the last Council meeting when, by a majority, the Council endorsed the action of the Parliamentary Committee in protesting against the Edinburgh University Ordinance. I think this singularly unfortunate. It is somewhat difficult to criticise this decision, as the grounds on which it was arrived at are not given in detail, but speaking as one who has had the privilege of reading the proposed Ordinance, it is beyond me to understand why a professional organisation should oppose a proposal which does not take away in the slightest from its privileges, and would provide a means of raising the status of the profession. I am sure the members of the profession in Scotland are much indebted to Professors Dewar and Mettam for the stand which they made against this retrograde movement, and can only regret that they got so little support. It is to be hoped that this opposition may not be the means of causing the Edinburgh University scheme to be dropped altogether. I cannot help thinking that Scotland and Scottish measures are viewed with a jealous eye by our brethren south of the Tweed.

As regards the important question of general education, while I am of opinion the standard should be a higher one, I fear in this progressive age there is a tendency to make our examinations too exacting. No doubt it is very desirable to have a thoroughly sound education combined with a natural aptitude and common sense, but I do not regard it as the only remedy for preventing undesirable candidates from entering our ranks. Some—I trust most of us—would wish that it should not be too high, for the men of average ability with the capacity for work will develop. To such men every encouragement should be given to participate in all the advantages to be gained by a university training, and we have innumerable instances where self taught men of indomitable energy and perseverance have made their mark as leaders and pioneers in the great ocean of science.

The suggestion that the profession should be directly represented in the House of Commons is a very excellent one in theory, but to my mind incapable of being carried out practically. Every candidate for Parliamentary honours must appeal to his would-be constituents on the broad issues of Radicalism or Conservatism *plus* the question which appeals to all voters, namely, education, and would stand no chance of election if he merely appealed for votes on professional grounds only. The general run of voters, whether belonging to the Government party or the opposition are not sufficiently interested in veterinary politics to record their votes on that ground alone, and unless we can educate the public to a sufficient interest in our affairs no amount of party funds would enable us to carry a single seat. It appears to me, therefore, a waste of time, strength, and money to attempt to place a veterinarian as such in Parliament through the ordinary electorate. At the same time the members of the profession in different constituencies should be organised so as to bring the full weight of their influence to bear on candidates for Parliament, and Members where elected. In addition the professional organisations should be prepared to spend a considerable sum on sending deputations to interview Members of Parliament in London when any matter concerning our interest is before them. The professional politician is not usually of much account. The teaching profession in Scotland have been considering the question, and from data supplied have found that it would be necessary to raise an election fund of £2,000 and provide an income of £900 a year. Do you think the amount of good likely to be obtained by having a single representative, if it were possible to get a constituency to accept him, would justify this expenditure? I hardly think it would, and personally I am opposed to any class representation.

Every one of us owes a duty to his profession as well as to the public, and a man who stands aloof in selfish isolation from the struggles of his brethren fails in that duty, and within the measure of his personal influence, whatever that may be, weakens the power and lessens the dignity of his profession. I would like then to urge the value of our Associations. They bring members into closer contact, little differences can be explained, new acquaintances formed, opinions exchanged, and in this way greater progress achieved. It is a sound principle on which to act—associate yourselves in as cordial a manner as possible by attending the meetings regularly, and in this way show a desire to cultivate friendly relations with your brother practitioners and to combine with them in their efforts for the common good. The pathway has not all been smooth—it never is, we must have our disappointments, and periods of depression, for life at all times, and especially a life like ours, is a continual conflict of good with evil, of health with disease, of truth with falsehood, and there are times when we are blamed unjustly for results which are beyond our ken and our power to modify or prevent. Such experiences come to us all, and we must face them. We cannot all achieve greatness, the profession is a path to fortune only for the few; but our chief glory should be, not the amount of money earned, but the amount of good done, and let us all try to contribute something to the quantity of truth added to the sum of knowledge. Let it be our aim to see that the good of our speciality shall prevail, and let us in our progress remember that the noblest function of all is to be a source of light, and to diffuse without reserve what has been revealed to us, and to own with humblest reverence each glorious discovery

We must also strictly follow the code of etiquette accepted by the profession : though it may not be perfect it has its root in a principle which works for the general good : while for our real success nothing in the end will prove more helpful than a faithful adherence to the spirit of the rule " Do as you would be done by."

Gentlemen, I have said nothing, I know, that has not been said better many a time before, I only wish I had been able to contribute material more worthy of the audience. I trust we may have a successful year, and that each member will do his best to attend the meetings and help to advance the interest of the profession through our Association. The interest must be maintained, and a President is a helpless individual without he has the assistance and co-operation of every member (applause).

Mr. M'Intosh, the President, had to vacate the chair temporarily to attend another meeting, and Principal Dewar was called to preside in his absence.

LYMPHANGITIS OF PLETHORA.

By L. McLaren, M.R.C.V.S., Brechin.

Mr. McLaren introduced his paper with the remark that after so excellent a presidential address, and in view of the pleasure of dining together, which would follow his paper, he felt exonerated from the necessity of producing a long paper at this meeting.

The subject is a very wide one ; on the present occasion my remarks will be strictly confined to one form of lymphangitis, viz., the lymphangitis of plethora, also known as " weed " and " Monday morning disease." Infective lymphangitis, of which there are many forms, does not come within the purview of my observations.

Lymphangitis in the restricted sense in which I use the term may be defined as a disease of the horse's limbs, either fore or hind, characterised by acute inflammation of the lymphatic vessels and glands of one limb, and manifested during rest. It is a disease which is familiar to every general practitioner in Scotland, so familiar indeed as to appear to have little if any attraction as a subject for profitable discussion, and yet I am convinced that a reference to results of curative treatment would not justify any of us in regarding it as a disease entirely unworthy of consideration. It is true that from the point of view of its mortality it is comparatively unimportant ; regarded from the standpoint of its deteriorating effect on a horse's value and usefulness, it is a disease of considerable importance, and one of which the owner of heavy draught horses has a wholesome dread.

It is essentially a disease of heavy draught horses and pregnant mares kept under conditions of hard work and liberal feeding. Under these conditions one day of idleness with working rations is apparently all that is necessary to produce lymphangitis, the symptoms of which, when these symptoms are fully developed, are so characteristic and so well known to you all as to render it almost unnecessary to state them. The differential diagnosis in the inceptive stage is, however, not so very easily determined. The shivering, the laboured breathing, the high pulse, the elevated temperature are symptoms which have often been mistaken for those of pneumonia. It is in presence of such an array of objective symptoms that the owner, especially if he be one whose mind is constantly haunted with the spectre of inflammation, is almost certain to rush to the conclusion that the dread monster inflammation has taken possession of his horse, and that his dire apprehensions of inflammatory mischief are to be speedily fulfilled. In these circumstances the owner does not profess to locate the precise seat of inflammatory mischief, he allows that his veterinary surgeon will be able to determine this, accordingly sends for him. If the veterinary surgeon be a young man with a limited experience, and if he should arrive before there is any perceptible degree of swelling of limb, he will have little difficulty in coming to the conclusion that the horse has pneumonia, he will have still less in convincing his client of the soundness of his view. In such a case the full development of the symptoms should furnish a salutary lesson in the complete abandonment of so doubtful and untrustworthy an expedient as a "lightning diagnosis." The train of phenomena which it often fails to foreshadow are inexplicable to a client except on the ground of a layman's pathology —a pathology which I do not recommend, and one which I am sure you are all prepared to heartily condemn. It is the pathology which is capable of explaining how in obedience to the law of gravitation a disease may conveniently fall into this part and into that.

Symptoms.

The diagnostic symptoms of lymphangitis will be found by examination of the groin where the external inguinal gland will be found hot, tender and swollen, the swollen and gorged lymphatic trunks can be felt as rounded cords along the course of the saphena vein, they form a distinct ridge in the general enlargement inside the thigh. The tenderness of the gland and lymphatic trunks can be demonstrated by slight pressure, the manifest effect of which is sudden abduction of the limb. The patient is reluctant to move ; if compelled there is more or less difficulty of progression and abduction of limb at each step, according to degree of severity of the attack. The symptoms in fore limb are apt to be confounded with those of sprain of biceps associated with œdema. Careful examination of the biceps and the history of case will help to clear the diagnosis. I may incidentally remark that in the absence of such obvious causes as lymphangitis, strain of biceps, tumours, so-called shoulder slips, and lesions due to violence (I have never seen a case of shoulder lameness. In the absence of such lesions) I am decidedly of the opinion that the diagnosis of shoulder lameness is almost invariably wrong.

Causes.

Lymphangitis in the restricted sense in which I use the term, may be said to be an old fashioned disease which has no established claim to rejoice in the possession of a micro-organism as a causative factor. It has to be noted, however, that science in one of her purely speculative yet perfectly reasonable moods has suggested that the outposts in the field of bacteriological research are pointing to the vistas in which the future progress of bacteriology shall disclose the organism of the so-called " weed " or " Monday morning disease." It would simply be dogmatic presumption of my part to say that science will never be able to prove a bacteriological cause for this disease—or any other disease, but I think I may say this, and I venture to think the most of you will be disposed to agree with me, that the balance of available evidence is decidedly against the view that this form of lymphangitis is due to any infective agent. The truth of the evidence is determined by the facts of the clinical history and by the known facts of the lymph circulation. Let us glance for a moment at these facts. As I have already observed, the disease is almost entirely confined to heavy draught horses, in which the tissues are more lax than in other breeds, and the lymphatic plexuses in the limbs more abundant, hard work, liberal feeding, and the interruption of a single day of enforced idleness during a period of hard work, constitute the fulfilment of the conditions under which the disease is known to make its appearance, and the inference which may be drawn from these facts is, I think, clear. It is that draught horses under these conditions are liable to contract " weed " because of the inherent difference in their limbs as compared

with those of all other breeds, a difference which is marked by greater laxity of tissue and more abundant lymphatic plexuses.

How does the lymph circulation in the limbs react to he conditions under which lymphangitis is known to occur? Its current is slowed because the main force of lymph circulation is completely suspended, viz., the force of muscular movement. In this connection it has to be recognised that cell growth and cell division is a physiological process in the lymph stream, and further that the increase of cellular elements is in inverse ratio with the rapidity of the lymph circulation, heuce a retarded circulation is associated with an abnormal increase of cellular elements. Under conditions of rest and liberal feeding the lymphatic system generally becomes overcharged, that of the limbs in consequence of the suspension of its chief motor power is brought almost to a condition of stasis, a condition which as I have already observed is associated with an abnormal increase of lymphangitis.

It is in this condition of the lymph circulation of the limbs that the congested and overcharged inguinal gland becomes, I believe, the seat of a lymphatic embolism, which completes the obstruction of the gland and of the entire circulation of lymph in the part of the limb which is situated below. I have detained you with this view of the pathology because it has an important bearing on a principle of treatment which I am to recommend. Before doing so I should say the fact that draught-horses are prone to lymphangitis at the time when sudden changes are made in their feeding, or when they are fed on succulent foods, or any food which contains a large proportion of water, points to the probability that toxic products of digestion may possibly be a contributory cause in the production of the disease.

Treatment.

It is said that to know the pathology of a disease is to know the general principles of its rational treatment. I believe the treatment of Lymphangitis is in a measure based on conceptions of its pathology which are now obsolete, I have no desire to inveigh against such time honoured practices as bleeding and physicking. Yet I do not hesitate to say that as a routine practice in the treatment of Lymphangitis bleeding and physicking are, in my opinion, to be heartily condemned. It appears to me to be a survival of the old idea that venesection and a good clearing out of the bowels is a necessary prelude which should be observed in the treatment of all diseases. The idea is exploded; all that is left of it is the impulse that prompts the observance of its practical application to the treatment of such diseases as show a special predilection for the limits of the horse.

The function of the limbs is locomotion, the enforced suspension of that function is one of the main factors in the causation of the disease. I ask you, gentlemen, is it reasonable to assume that a method of treatment which necessitates the continued subjection of the patient to enforced rest for 50 hours, probably more, is one which is deserving of a cardinal place in effort of curative treatment. I am convinced the more effective means, and certainly the more rational treatment, of subjecting the patient to walking exercise is far too much subordiuated to the time honoured practices of bleeding and physicking—measures which have no physiological effect that restricted alimentation is not capable of producing. This is a fact which deserves fuller recognition than it sometimes receives. Restricted alimentation should be rigidly observed in the whole course of the treatment of Lymphangitis, and in every other disease in which overnutrition plays a part. In the treatment of Lymphangitis this claim does not rest solely on the therapeutic value of restricted diet, it rests also on the consideration that it does not, like the more heroic measures of physicking and bleeding, usurp the place which walking exercise should, from the very outset, have in the curative treatment of the disease.

I hope you have not inferred from anything which I said that I underestimate the value of a dose of laxative medicine, or, in other words, as much medicine as may be considered necessary for the purpose of overcoming the degree of torpor of bowels that is apt to be associated with an elevated temperature. This can be followed with advantage by Sulph. of Magnesia in drinking water, combined with Nitrite of Potash, for the purpose of soliciting the action of the kidneys. Walking exercise for at least a couple of hours daily should be attended to, (in the case of the horse that cannot walk I entertain no prejudice to purgatives and bleeding). After exercise, warm fomentations, massage, friction of the limb from below upwards, and the mechanical support which hay or straw bandaging affords have each and all their due places in the scheme of curative treatment. Pot. Iodide is a therapeutic agent of great value in the treatment of Lymphangitis. Digitalis by virtue of its diuretic effects is a useful agent, and is specially applicable in the case of aged horses prone to weeds which are sometimes found to be superimposed on a defective circulation, due to cardiac causes. One attack of Lymphangitis predisposes to another. Successive attacks produce the condition known as Elephantiasis and its associated evils, which are incurable.

Above all it is necessary that one should see the attendant who is to be entrusted with the charge of the engorged limb. I like to see him divest himself of his coat and waistcoat before commencing to his work of aiding the impeded circulation by fomentation, massage and friction. Droplets of sweat falling in quick succession from the point of his nose are a fairly reliable indication that he is doing justice to the work which he has in hand. In the absence of such evidence, or some other equally reliable evidence, of whole hearted devotion to a difficult task, I refuse to share responsibility for any permanent record of weed which the leg may bear.

It only remains for me to thank you all for the patience with which you have listened to what I am aware has been an ineffective and quite unorthodox attempt to place this subject before you.

Discussion.

Mr. Rutherford: The subject is one with which I have been familiar since I was 15 years of age. These were the days when bleeding, cold water applications, purgatives—given even in the face of cold water applications—were the recognised lines of treatment, and I must confess that under the hands of those who carried out that practice in the Dick College Yard, the treatment was eminently successful. It was one which I continued myself when I went abroad, until I got my thinking cap on, and began to drop certain parts of the treatment, notably the bleeding. One great disadvantage of the bleeding is this, not that it does not arrest the disease, for it does so, but the horse is more liable to second attacks. That we abundantly proved in our practice, where we had 800 to 900 horses always under our charge. I do not agree with Mr. McLaren on several points. From my own experience I do not agree with him where he says it is essentially a disease of the heavy draught horse; it is not. It certainly is not so common in the harness horse, but I have seen it in all classes of horses, and seen it a good deal in harness horses. I have also seen it on every day of the week. It is a mistake, therefore, to say it is essentially a disease of the heavy draught horse. That it is a disease which is more likely to occur on a Monday morning, I also agree with, although, as I have said, I have known it to occur every day of the week, even when the horse has been kept at its work—that generally occurred in horses which had had attacks on previous occasions. Mr. McLaren has very plainly described the symptoms of a case of acute weed as it

occurs in the country, but we in the town see weeds of very different forms from that, and these he has not mentioned. Weed occuring in the hind limb is common enough, but there is a more serious form of weed that occurs lower down, where the inflammatory mischief is located in the glands in the vicinity of the hock, and where you have engorgement of the limb between the hock and the coronet, and where the lameness, and the dificulty of relieving the lameness is ten times more than in the case of a weed in the groin where there is plenty of loose tissue. You have plenty of room for effusion in the fore limb, but where you get the disease below the knee, where you have Lymphangitis affecting the glands below the knee, you have the same degree of intense lameness that you have in the hind limb under similar conditions. I am not prepared to dismiss the treatment with the list Mr. McLaren has given, in fact a large number of the ordinary cases of weed give the veterinary surgeon little trouble. I do not agree with him when he says he would not give a purgative. I think in the majority of stables where you get weed, they use purgatives, and by purgative, I mean a dose of physic which would effectually open the bowels, like aloes; six or seven drachms for the biggest horses, and five or six drachms for harness horses, is I think a fair enough dose. Eight, nine or ten are entirely unnecessary. Wi h a dose of physic there should be warm clothing to induce action of the skin, and fomentation locally applied to the inside of the groin to encourage, not to arrest, swelling, and to assist nature in running the natural course of the disease. This has been in my hands a most successful treatment. With regard to the use of sulphate of magnesia when a horse is shivering and has a temperature of 105, I should be sorry for the man who adopted that treatment; he would soon get his name up as not being very smart. Aconite should be abolished from the veterinary surgeon's pharmacy except for special occasions. It is responsible for a large number of deaths, especially where there is a tendency to congestion of the lungs, or heart failure.

With regard to those other cases lower down the limb, they are not dietetic at all. They are due directly to the absorption of morbid matter, and special attention has to be given to the frog. One of the most serious cases I have seen for a long time occurred quite recently when a horse with grease in one limb was attacked with acute lymphangitis, and I have no doubt it was from the absorption of morbid matter from the diseased skin. The disease was characterised by the formation of abscesses at different valvular openings of the vessels, and as high up as the sternum, and ultimately after good treatment locally, and largely antiseptic treatment, he made a most excellent recovery, and is now working on the streets of Edinburgh again till he gets another attack, which he certainly will some day.

One other thing has been missed out, and I find it very necessary. I don't think any man does his duty unless he slings the horse. It would be a mistake to allow the horse to get to the ground when it had acute lymphangitis, especially a horse that had had recurrent attacks, and where there was a degree of elephantiasis. All cases of acute weeds I invariably sling. The exercise which Mr. McLaren recommends so strongly I certainly recommend to a moderate extent if the horse is fit for it, but if the horse is sweating, and is in pain, and the pain is so marked where the swelling is between the hock and the coronet, it would be a case of the grossest cruelty to exercise a horse in that state. Exermay be all very well when the case is a mild one confined to the groin, and where the temperature begins to fall early in the disease, but it is advisable also to assist by hand rubbing.

Mr. McLaren said nothing about the advantage of applying cold water or hot water. For myself I have seen both tried. I prefer hot water because it favours much more rapidly the natural termination of the disease. But in the other case I have been referring to where the disease is lower down the limb, between the hock and the coronet, the treatment I find effectual has been the application of hot water night and day until the horse stops perspiring. That may and does last sometimes for days, and the only way to stop it is continual subjection of the limb to the action of warm water continually applied, so as to relieve pain by effusion. The pain is due to a certain amount of plugging of the smaller blood vessels. In all cases you have plugging, and one would imagine from Mr. McLaren's paper that weed was never a fatal disease. Horses die of weed; if a horse has had frequent attacks of the disease then it causes occasionally—not frequently—the death of the horse, and you generally find when they die that the disease is associated with ante-mortem clot.

Mr. CAMERON: Mr. McLaren has given us a very useful paper. To go into all the different forms of swelling in the limbs that come under the name lymphangitis would take too long, and he did quite right in limiting the subject as he did. I am aware of the frequency and malignancy of the swellings in the lower part of the leg, but as to the causes mentioned by Mr. Rutherford I will not go into these. I don't object to them being set down as due to absorption by the frog, or some organ of the body, of some bad material. But there are a lot of cases generally called weed that I would not call lymphangitis. My idea is that erysipelas is a far more suitable designation for many of these cases. As to the causes of some of these forms, I have frequently noticed that the weather has a very great deal to do with them. In weather like this, with its sudden cold snaps, you will get them not only on Monday morning but on other days of the week. Regarding the ancient treatment, I don't believe in bleeding every case. But if I were to get a case such as has been referred to, as the earliest stage when you could hardly say what the disease is, I would bleed moderately and give a good dose of physic; not a laxative, not even seven drachms to a big cart horse; it does not come away as a purgative at all, but lies in him for 30 hours perhaps, and then comes away with far greater force than nine drachms would if nine had been given to begin with. Nine drachms would not produce so much purgation. I believe in giving them eight drachms of a dose of aloes to ensure it coming away at the right time. You can always control the motion by the amount of food and water. As regards the amount of exercise, I have never yet seen in my abundant experience that the owners themselves try to work off the disease by exercise. I don't believe in exercising them in the early stages, but as soon as action of the physic is done then increase the amount of exercise as much as possible. I quite agree also with the use of hot fomentations in the early stages.

Mr. WILSON: As to the cause of lymphangitis, I do not accept the usual plethoric cause at all. I have come nearly to believe that lymphangitis is never due to plethora. It is always due to some injury and to some infection by micro-organism, and it is an infection that sets up lymphangitis. The different forms of lymphangitis are due to the different characters or forms of the micro-organism that get into the wound. You may get lymphangitis from a very small wound. Lymphangitis occurs especially in cart horses with hairy legs at this time of the year when manure is being carted on the farm. The horse gets into the manure heap, and when it is rested from Saturday to Monday the limbs begin to get a little thick by Sunday, and on Monday morning the horse has probably a bad weed. That is due to the condition of the legs. They are seldom properly cleansed, and that favours the growth of the micro-organism on a small scratch on a leg, and that leads to the weed. I have seen cases of bad weeds from bad frogs and from

overreach. The latter occurred in a pony's foreleg. Its temperature was 106° for two or three days. In these cases not only hot water was used for treatment, but plenty of antiseptics in the water did a great deal of good towards controlling the progress of the disease. Along with that I have used internal antiseptics with a great deal of good, such as chlorate of potash, salicyclate of soda, and hyposulphite of soda. I believe it is through the antiseptic action of these medicines that we can control the disease and keep down fever. In plethoric horses that took a weed—big, strong cart-horses in good condition—I don't object to giving aconite, but if you get horses blowing and highly sweating, with pain for perhaps three days, aconite materially assists to relieve the horses of their suffering. I approve of the use of hot water fomentations with antiseptics in them, and the dressing of wounds with antiseptics, especially on the hind limb, and anything to keep the wounds clean and stop suppuration. For the moist frogs I would use some drying powder. If you get a weed associated with a bad frog and don't treat the frog, the weed will kill the horse. In the country it is very often difficult to be able to get a sling for a horse. In applying friction to the weeded limb most people when told to rub the limb begin at the foot and rub upwards. I don't think that is the proper way of applying friction to the swollen limb. They should begin at the top and work downwards. They would do more good that way. Exercise would do a lot of good also, as soon as the horse was free from pain, and as soon as you begin exercise the cold water is best for taking away the thickening of the limb. You should apply cold water with hand rubbing and dry bandaging.

Mr. PEDDIE: I would like to thank Mr. M'Laren for bringing this subject for discussion. I think he is to be congratulated on the excellence of his paper, especially because he chose a subject with which nearly every one of us is practically acquainted. Mr. M'Laren tells us, to begin with, that he is discussing a particular form of lymphangitis, and I think that Mr. Wilson has been referring in the course of his remarks and also, probably, Mr. Rutherford, to other forms of lymphangitis which we are all acquainted with occurring as the result of wounds and other causes.

Mr. RUTHERFORD: The weed down the limb is just the same as the weed further up the limb.

Mr. PEDDIE: Mr. M'Laren was discussing a form of weed that is associated with plethora. With regard to the pathology as stated by Mr. M'Laren I do not think I have any remarks to make. I think that the pathology of weed as he has stated it is the generally accepted one at the present time. My remarks are more as to the treatment. I am sorry I do not find myself in agreement with Mr. M'Laren on the treatment. If I have a case of very acute weed, and especially if it is an animal that is strong and robust I invariably bleed. For many years I did not bleed, but in the last ten years I have come round to the opinion that bleeding is of the greatest advantage.

Mr. RUTHERFORD: But not in recurrent cases?

Mr. PEDDIE: I have bled in recurrent cases, but if you bleed till the bleeding makes a distinct impression on the pulse I am satisfied that it is of the greatest value. I do not say that I would bleed in every case, but I bleed very frequently, and especially if I get a full strong bounding pulse with a very acute weed in a strong robust animal. I give a considerable dose of physic and on that point I have had a very peculiar experience so far as heavy horses are concerned. In Dundee it is not an uncommon thing to administer ten, eleven, and twelve drachms of aloes, and I do it repeatedly and do not get the least tendency to superpurgation. Of course these bigger doses referred to I have generally given to horses that have had probably one or two weeds, or that I have treated before and know what they can stand, but I never give less than nine or ten drachms of aloes to a cart horse. To a lighter horse seven or eight should be generally sufficient. When I find animals blowing and sweating, and suffering considerable pain I generally prescribe a mixture for them, generally digitalis and acetate of potash, and a solution of spt. ether nit., one and a half or two drachms of the latter with the mixture, and I find I get most excellent results. In more chronic cases I use iodide of potash combined with resin and cubebs, if my client can afford it. Fomentations, if properly carried out, are of the greatest benefit, and I think no one who has treated many cases of weed can but come to the conclusion that they afford the animal very considerable relief. Unless properly carried out they are not of much value, and I suggest putting round the leg a blanket wrung in very hot water with something to keep in the heat. Otherwise I have a leg tub in the orthodox fashion.

With regard to exercise Mr. McLaren seems to lay the greatest stress upon exercising an animal. No doubt exercise is of the greatest advantage, but I think he claims rather more for it than he is entitled to. There is no doubt that if an animal is fit to be exercised, exercise is of the greatest advantage, but it should be carried out with as much care as any other part of the treatment. I think, however, that in acute cases a considerable time must elapse before you can exercise the animal properly.

Mr. BAIRD: We have had some original remarks from Mr. Wilson, which brought matters before me in a new light. The cases which Mr. McLaren has described I don't think could be due to any micro-organisms. My treatment of a case of weed such as we have had described in the hind leg is simply that when there is pain and fever I give an anodyne and a purgative, followed by fomentation, and also exercise if the animal is fit With pain, of course, exercise is out of the question.

Principal DEWAR: Before calling on Mr. McLaren to reply I would like to ask for information. One of the most pronounced cases of weed I have seen occurred in a heavy cart mare, not too thick in the leg. She had done a very heavy day's work, and while her cart was being emptied of the load, she had stood for five or ten minutes, perhaps she had got a little chill. She was so suddenly caught by it that though she had not 200 yards to go to the stable she could hardly be got home: It was in one of the fore legs. I would like someone to explain that.

Mr. MCLAREN replying to the discussion said: I tried to make it sufficiently clear that my purpose regarding Lymphangitis was to be confined entirely to that well-known form in which you have enlargement of the glands of the groin. Several gentlemen, Mr. Rutherford and Mr. Wilson in particular, referred to other forms of Lymphangitis, forms that affect the parts below the hocks and the knees. These were undoubtedly due to infective causes, and entirely different from the forms I was referring to. When I spoke of the use of sulphate of magnesia, what I objected to was the routine practice; that is, giving a horse purgative medicine that will necessitate keeping him in the stable for the next three days, whereas if he was subjected to exercise straight away, and attention given locally to the limb, better results would be achieved than by hoping that the enlargement would be relieved by purgative medicine alone. With regards to Mr. Wilson's claims for antiseptic treatment; allowing even that Lymphangitis is due to infective causes—that is, due to an organism—I do not think the application of antiseptics externally or even internally are calculated to produce any effect at all, I am quite safe in making the statement that micro-organisms in the interior of the body cannot be controlled by the administration of antiseptics. In regard to emaciated horses that are the subjects of weed and that die—I think it was Mr. Rutherford who referred to these

cases—my own experience has been that a large proportion of these cases if they were thoroughly looked into would be found to be caused by defective circulation due to cardiac causes. The horse's circulation is defective, and there is a weed, of course superimposed upon that condition. The combination of these two explain the aggravated nature of these cases in weakened, and emaciated horses.

I thank you all very heartily for your criticism of my paper.

Mr. RUTHERFORD proposed that Mr. McLaren should allow the Secretary to forward his paper to London for publication.

Referring to Mr. McLaren's reply on the criticism, Mr. Rutherford said that he had stated you could not give any antiseptic medicine to destroy an organism with much chance of success. The case I told you about that had abscesses from the fetlock up to the sternum, also for 36 hours exhibited distinct symptoms of gangrenous pneumonia, has been entirely arrested with drachm doses of quinine associated with creosote and milk. At present I have two cases which recovered from diseases where the whole blood was contaminated. One had 30 or 40 sores on his body, and in that case enormous doses of quinine—drachm doses—were given every three or four hours.

Mr. MCLAREN: I do not think there is any proof that the creosote the horse got had anything to do with the result. It was not sufficient to assume that because he got that treatment that it had the effect of diminishing the vitality of these organisms or killing them. They died, if they died at all, because the natural defences of the body were at work.

SPECIMENS.

The SECRETARY exhibited the skull of a cart horse showing a fracture through wing of the sphenoid.

Captain RUDD brought forward some microscopic slides of organisms of epizootic lymphangitis, but the light unfortunately was not good enough to demonstrate them.

Votes of thanks to the President and Mr. McLaren brought the meeting to a close.

WESTERN COUNTIES VETERINARY MEDICAL ASSOCIATION.

THE HORSE'S FOOT: SOME ANATOMICAL AND SURGICAL POINTS.*

By JOHN DUNSTAN, M.R.C.V.S., F.R.S.E.

I have been particularly requested by your President to deal to-day with a subject of general "importance," and I consider that no subject could possibly be of greater importance than the one I have selected. I have purposely avoided reference to the pathological aspect, and confined myself to the surgical, chiefly with reference to anatomy, by means of lantern photographs and sketches.

Commencing with the condition known as Seedy Toe, the nature of the disease was first described, followed by a description of the methods usually resorted to for its eradication.

1st from below, carefully scraping out the mealy horn and applying strong disinfectants, then plugging with tar and tow, repeating at each shoeing; removal of tor clips. Blisters or Oil of Bays to coronet to stimulate growth of horn.

2nd from below. Excision of front wall of cavity, swabbing with antiseptic and the use of a protecting strap of bandage, made preferably of leather.

Several slides were shown illustrating the various methods of dealing with Sandcracks:—Necessary to pay attention to shoeing, position of clips, bearing of shoes; objects, to prevent extension, and to diminish or limit movement.

Two essentials in treatment: 1st., remove direct bearing on edges of crack; 2nd, bind edges together.

The various methods described and illustrated were: 1. Rivetting with ordinary shoeing nails. 2. French clips. 3. Hartmann's plate. 4. Screws through. 5. Strap buckled round. 6. Wedge of hard wood between edges, gutta-percha moulded into the crack and subsequently hardened. 7. V-shaped incision with or without stripping off the wall. 8. Firing iron.

Excision of Horn Tumours.—Photographs were shown illustrating the method of stripping the wall and subsequent removal of tumours.

The subject of Quittor was next dealt with, and lantern slides illustrating the relations of the lateral cartilages and the various stages of the operation were thrown on the screen. Bayer's method was also illustrated.

The term quittor is applied to that condition of the coronet of the horse in which there is a chronic suppurative inflammation followed by necrosis of some of the deeper structures, generally the lateral cartilage, and consequent formation of one or more sinuses.

The cause is either an injury to the coronet, such as a tread or tramp, or a suppurating corn, prick in shoeing, or some similar injury by which pyogenic organisms are introduced into the foot.

Opinions differ as to which is the most common cause, injury above or below the foot, and this is probably due to a difference in the definition of the term quittor. Some authorities call every condition of the foot in which pus appears between the hoof and coronary band a quittor. If this definition be accepted, then undoubtedly the most common cause of quittor is to be sought on the ground surface of the foot. Corns, pricks, gathered nails, gravel, etc. If we do not accept this definition, but the one given in the first paragraph of this note, then the most common cause is to be found in operation above the coronet.

The method of treatment will depend greatly on the length of time the condition has been in existence previous to consulting the practitioner. The history should be carefully learnt from the owner as far as possible. Some amount of information may be gained, too, from the ringed condition of the coronet which is generally seen in cases of long standing.

The first essential is to carefully explore the sinus or sinuses with a flexible metallic probe. (A whalebone or stiff metallic probe should not be used, being too rigid.)

In a recent case the object to be aimed at is the destruction of the pyogenic micro-organisms. In a chronic case the removal of a greater or less amount of dead tissue. Therefore, in the early stages, antiseptic foot baths, Jeyes' or $CuSO_4$ and injection of the sinus with some reliable antiseptic. The method which I have adopted with success in many cases is as follows. Soak the foot well for half-an-hour in a two per cent. solution of Jeyes' Fluid in hot water. Next walk the horse a few yards to work the excess of fluid out of the sinus. Then with a quittor syringe inject into the depth of the sinus

℞ Zinci Oxidi
Glycerini
Acidi Acetici dil.

made into a thin paste.

Finally bandage a pad of antiseptic tow firmly over the opening of the sinus with a six yard bandage, 4 in. wide. This dressing should be removed after three or four days and the whole process repeated, again and

* At the meeting at Plymouth, Nov. 22nd, 1906.

again if necessary, until cure is effected. Generally three or four dressings will be found sufficient.

Various other dressings are recommended by different authorities for the same purpose, amongst others :— 10 per cent. solution Zn. Chl., 10 per cent. Hyd. Perchlor., 5 per cent. Carbolic, 10 per cent. Protargol, Villate's Solution, Cu. Sulph. 1, Pb. Acet. 2; Zn. Sulph. 1, Vinegar 12.

In the later stages, when necrosis of some of the deep structures has taken place, the object of treatment is obviously to remove the necrotic portion. Various methods are recommended for this purpose, and for all of them is claimed a certain amount of success.

Firing-iron is inserted as nearly in the direction of the sinus as possible One reason for the success of this method is that it acts by enlarging the mouth of the sinus and so facilitating the escape of discharges.

Injection of caustics and escharotics. 50 per cent. Zn. Chl., 10 per cent. Hyd. Perchlor., etc. These act by causing sloughing of the walls of the sinuses and the separation of the necrotic parts in the form of a core—and is frequently successful.

Plugging with a stick of Zn. Cl. or finely Pulv. Cor. Sub. which acts in the same way as above, but more forcibly.

Setons are also used with the object of providing a dependent orifice. They are dressed with various digestive ointments.

Operation for removal of lateral cartilage. The hair is first removed as far up as the fetlock with a clipping machine, the foot is then thoroughly scrubbed with hot water and soap, and then soaked in a hot 3 per cent. solution of Creolin for half an hour, then wrapped in tow saturated with 1-1000 Cor. Sub. and secured in position by a poultice boot.

Cast with the side of foot to be operated on uppermost, and apply Esmarch's bandage, or tourniquet. Rasp and pare the wall below the fistulous opening so thin that it yields readily under finger pressure. Insert a probe into the sinus and explore it, and cut down on to it through the laminæ, thus laying the sinus open for the whole of its length. This will probably reveal a necrotic portion of the lateral cartilage of a bright green colour—caused by chromogenic micro-organisms, or a collection of inspissated pus intermingled with shreds of dead tissue.

If the former, it will be necessary to remove the whole of the lateral cartilage. In order to do this, the coronary band must be carefully separated up from the deeper structures by means of a double edged sage knife. This will expose the lateral cartilage covered with its perichondrium. The easiest and safest plan is now to divide the lateral cartilage from above downwards into two parts. Remove the posterior half first, then extend the foot to its utmost limit before attempting to remove the anterior half, in order to avoid puncturing the pedal joint, the capsule of which is in close relation to the lateral cartilage when the foot is flexed. The right and left handed sage knives are the most convenient instruments for removing the cartilage. The whole of it should be removed: if any portion is left behind it can be removed with a sharp spoon or French searcher.

In some cases the lateral cartilage will hardly be recognisable as such, having become so far degenerated. In this case I have found that a sharp spoon is all that is required to remove the dead tissues, every part of which must be removed, leaving nothing but healthy tissue behind. Some authorities advise now dressing the wound with a 10 per cent. solution Zn. Cl., but this in the majority of cases is unnecessary. In fact an ordinary antiseptic dressing, 3 per cent. Creolin, or 5 per cent. Carbolic, is more satisfactory, as it is not followed by the destruction of tissue which must follow 10 per cent. Zn. Chlor: a pad of dry carbolised tow, or tow saturated with 5 per cent. Carbol. should now be inserted into the cavity under the coronary band and retained in position by a bandage.

Now remove tourniquet or Esmarch; this will most likely be followed by profuse hæmorrhage, which is checked by the tow and bandage. On account of this hæmorrhage it is generally necessary to remove the dressing next day. The foot should then be again thoroughly soaked in three per cent. Creolin, and dressed with strict antiseptic precautions, a pad of carbolised tow being inserted under the coronary band and carefully bandaged as before. If proper antiseptic precautions be taken in the application of the second dressing, it will seldom be necessary to re-dress within a week, necessity for re-dressing being indicated by the appearance of moisture through the bandage.

The operation for picked-up nail was next dealt with, photographs illustrating both the complete and partial operations being shown. The lecturer described the various stages of the operation in detail, laying special emphasis on the absolute necessity for strict attention to details of surgical cleanliness, and the use of Esmarch's bandages or tourniquets. He stated that he had recently operated on a case in which the navicular bone was perforated, and that the animal made a good recovery.

Slides were shown illustrating the methods of applying the antiseptic dressing, which need only be changed about once a week or ten days, and samples of the various impervious materials used were passed round for inspection.

REVIEWS.

The Kennel Encyclopædia.

We have received part 1, vol. I, of *The Kennel Encyclopædia*, edited by J. S. Turner, M.R.C.V.S. (Chairman of the Committee of the Kennel Club.)

The part runs to over 100 pages, and is copiously illustrated. Some of the photographic reproductions are very good, some rather blurred.

The work will be published in parts, four parts constituting a volume. The parts will be issued at intervals of from four to six weeks at 5/- each, and the whole work will comprise about 16 parts or four volumes. The size is Crown 4to. (10 in. × 7½ in.)

The object of this work is to supply in a convenient form reliable information upon *every matter* which the dog owner or fancier may possibly desire to be acquainted with.

We think this object will be achieved if the future parts are as well done as the first. The volume will be always readable and instructive, and the whole work will be a safe guide for reference.

The subjects in Part 1 include a number on Canine Surgery and Medicine by Mr. Cousens and Prof. Hobday. There are also very interesting articles on "The Ancestors and Relatives of the Dog," by R. J. Pollock, F.L.S., on "Ambulance Dogs," by Major E. H. Richardson; on the "Antiquity of Dogs," by A. Croxton Smith.

Doubtless the object of the Editor and his contributors is to supply useful information, but it may be questioned whether some of the notes on diseases are not carried further than is safe for the general owner of dogs. The treatment of "Anæmia," "Alopecia," and "Ascites" for instance can hardly be taught to a person ignorant of any scientific training by an article which occupies five minutes reading. In each case the first thing required is to diagnose the case, the next to adopt some therapeutic means. The mere detailing a few symptoms will not help much to diagnosis, but the temptation to try the detailed prescriptions must be great to the amateur—and often fatal to his dog.

We certainly think it is misleading and unwise to give detailed prescriptions which only help to re-vitalise the idea that every disease only wants something in a bottle to cure it.

In justice we may say that Professor Hobday's articles are quite unobjectionable.

There is just another feature which we must notice. At the end of the book is one page devoted to advertisements, and the insides of the wrapper are similarly used. Just 50 per cent. of these advertisements are of quack remedies. Surely so good a work might dispense with these.

VETERINARY SURGICAL AND OBSTETRICAL OPERATIONS.—By W. L. WILLIAMS, Professor of Surgery and Obstetrics in the New York State Veterinary College, Cornell University. Second Edition, revised, Demy 8vo. Pp x + 230. 10/6 net. (Baillière, Tindall & Cox, London).

The chief aim of this volume, which is largely based upon, and embodies portions of, the "Operations Cursus" of Pfeiffer, is to serve as a guide to students undergoing a course of "laboratory Surgery", in which operations are performed upon living animals expressly procured for the purpose.

The obstetrical section, which is confined to embryotomy, is mainly designed for students practising this operation upon freshly killed calves in an artificial uterus. The whole work is thus primarily intended for the use of students, while at the same time an endeavour has been made to render it serviceable to practitioners.

The copious illustrations limit the actual literary matter to about 120 pages, in which between 50 and 60 operations are dealt with.

Some are included which are rarely, if ever, performed in this country, while not a few very common ones are omitted. As a rule, one method only of performing each operation is given, and in some cases the procedure advised is by no means in accordance with English ideas.

The subject-matter is necessarily extremely condensed. An earnest, though not always successful, attempt has been made to accurately and lucidly describe the procedure of the various operations, but little attention is paid to the broader aspects of surgery, viz., the considerations which indicate, and the ultimate effects which may follow a surgical operation. The work, then, must be considered as a student's manual of general and special operative technique, and we fear that the difference between British and Transatlantic methods of practice and *tuition* will prevent its wide circulation in this country. It is possible that practitioners with a taste for operating may glean some useful hints from its pages.

Some of the numerous plates and illustrations are good, while others strike us as distinctly too diagrammatic. Plate XXIV. on which the "chestnut" below the hock joint is designated the "ergot," is in striking contrast with English nomenclature.

W. R. C.

THE ROYAL DICK COLLEGE MAGAZINE, No. 5., Feb. 1.

This is a bright little number, and the magazine appears to be keeping well up to its earlier promise. There is an interesting little paper on "Hypnosis in Animals," by Gerald Leighton, M.D., F.R.S.E.,: An account of a troublesome and unusual parturition case, by Alexander McTurk, M.R.C.V.S.: A Cryptorchid operation, by James Anderson (D): Notes on the equine thinking apparatus, by G. T. F. Budge (C.): A note from Cairo, by D. Silvestro Rabagliati, on "Separation of the hoof": A report of the V.M.A. meeting: a couple of pages of football notes: and a fair sampling of students' wit of the usual brand—amongst it an "answer to correspondent"—"No, you have made a mistake: it was 1880 and not 1890 that the College slaughter-house was cleaned out."

But the gem of the number is a burlesque of one of those empty reports of cases that occasionally grace (?) our (and other) pages, either in reports of meetings or as "Clinical notes." We give it in full:

AN UNDIAGNOSED CASE IN A DUCK.

Mr. CHAIRMAN and gentlemen,—The case I have the pleasure in bringing before you this evening is one I saw last summer while seeing practice with Mr. Glenorchy of Auchtermuchty. We received a telegram one Saturday night, saying, "Come at once, duck bad."

Subject.—A piebald Aylesbury duck rising 5, 14.2 (inches), with a white star on its forehead.

History.—The duck had been in the possession of the present owner since it was an egg, and had never ailed anything up to the present. We were told that it had hatched out sooner than the others of the same sitting. It had been taken ill after a meal of crushed oats and barley water, and had not been heard to quack since.

Symptoms.—We found the animal lying on its off-side. Pulse 92, temperature 110, respiration 40. The visible mucous membranes were injected.

Diagnosis.—Unknown.

Prognosis.—Favourable, seeing that the owner had called *us* in.

Treatment.—Gave a dose of the following:—

Ammon. carb.	℥i.
Pot. iodid	℥ix.
Gentian	Oj.
Water	q.s.

We left a mixture of Tr. squills M. iii., Spt. Eth. Nit. ℥ iv. and Acid. Sulph. ℥x. A teacupful to be given every four hours in a quart of warm ale.

Next day the owner sent us a note to say we needn't call again, as they were going to have duck for next Sunday's dinner.

Thanking you, Mr. Chairman and gentlemen, for your kind attention.

The Court of the University of Edinburgh.

The Court of the University of Edinburgh which met on Feb. 18th had various important matters before it. The Privy Council had transmitted an Order of His Majesty in Council approving University Court Ordinance "Edinburgh No. 6 (Regulations for the Degree of Bachelor of Science in Forestry)"; another letter intimating that the Privy Council had not approved of the Court's Ordinance No. 4 (Institution of Degrees in Veterinary Medicine and Surgery and relative Regulations).—*The Lancet.*

Charge of Damaging Horses.

At the South-Western, Herbert Alfred Whiston, a horsekeeper in the service of Messrs. Tilling, omnibus proprietors, was charged with damaging 40 horses belonging to his employers and stealing horse hair. The prisoner was employed at stables in Lombard Road, Battersea, which accommodate 73 horses. He was dismissed for drunkenness, after which the tails of 40 horses were cut away and the manes of five others. The prisoner, on his arrest by Detective-sergeant Purkiss, confessed his guilt and admitted selling the hair for a few shillings. A representative of Messrs. Tilling said the horses had been damaged to the extent of £40. Detective-sergeant Purkiss was prepared to prove a conviction against the prisoner for robbery with violence, when he was sentenced to three years penal servitude. Mr. de Grey committed him for trial

PARLIAMENTARY.

In the House of Commons on Monday, Feb. 25th

Meat Inspection in Scotland.

Mr. Watt asked the President of the Local Government Board whether in view of the dissatisfaction as to the unequal manner in which the officials of local authorities in Scotland carried out their inspection of meat, he would appoint a veterinary surgeon, with practical experience of the work, to report on the standard and system of inspection in operation in the different districts.

Mr. Sinclair answered: An inquiry into the methods of meat inspection by officers of local authorities in Scotland is now going on.

Milk and Phthisis—Glamorgan County Council

The report of the Royal Commission on Tuberculosis was considered by the sanitary committee of the Glamorgan County Council sitting at Cardiff on Friday, the particular phase of the report to which attention was specially directed being the question of communicability of bovine tuberculosis to human beings by drinking milk from tuberculous cows. The commission were agreed that phthisis was communicable in this way, and urged the enforcement of stringent measures to prevent the sale and consumption of milk from such cows.

The Chairman (Colonel Lewis) thought that something ought to be done to secure a closer inspection of milk supplies. He knew of the case of a little girl brought up on sterilised milk. After drinking milk as it came from the cow for a fortnight she died, it was supposed from tuberculosis she got through drinking the milk.

Mr. Blandy Jenkins: Do you mean that it would kill a child in a fortnight?

The Chairman: That is what the doctor told me. He said the child got tubercular meningitis through the milk.

Sir John Llewelyn asked what were their regulations in relation to the inspection of dairies and cowsheds.

Dr. Williams replied that they had no regulations in the county, but they had in the city of Cardiff.

Dr. Thomas (Garw) said that it was impossible to test cows except by the use of tuberculin, which caused a reaction. As to the milk, if people would boil it for a minute or two it would at once sterilise.

Sir John Llewellyn: But are not tuberculous cattle at once destroyed?

The Chairman: When they are found out.

Dr. Williams said that sometimes when animals were suspected they were taken to small villages and slaughtered, and then sent into Cardiff.

The Clerk (Mr. Franklen) said the matter was discussed at the meeting of the County Councils Association on Wednesday, when it was stated that the London County Council had introduced a private Bill into Parliament seeking to obtain the most searching powers in all parts of the country whence milk was supplied to London. The association felt that the law ought to be altered for the whole of the country and not at the instance of individual municipalities.

Dr. Thomas proposed that they take joint action with other county councils, and bring pressure upon the Legislature to pass a Bill as soon as possible.

Alderman E. H. Davies seconded, and the motion was adopted.

DISEASES OF ANIMALS ACTS 1894 TO 1903. SUMMARY OF RETURNS.

Period.		Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Rabies. Cases Confirmed.		Sheep Scab.	Swine Fever.	
		Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Dogs.	Other	Out-breaks	Out-breaks.	Slaughtered *
Gt. BRITAIN. Week ended Mar. 2		18	23			23	48			19	25	160
Corresponding week in	1906 ..	20	37			16	26			13	23	113
	1905 ..	15	13			22	40			31	9	35
	1904 ..	23	33			32	50			43	27	236
Total for 9 weeks, 1906		166	225			171	405			284	323	1461
Corresponding period in	1906 ..	176	239			199	355			200	170	760
	1905 ..	180	274			204	375			438	96	376
	1904 ..	187	259			246	497			797	237	1458
Board of Agriculture and Fisheries, Mar. 5. 1907.												
IRELAND. Week ended Feb. 23		..	..	..	..	..	..	..	..	4	5	93
Corresponding Week in	1906 ..	..	..	..	..	..	..	..	..	2	1	..
	1905 ..	..	..	..	..	1	8	..	..	11	..	1
	1904 ..	..	..	..	..	..	..	..	..	17	4	35
Total for 8 weeks, 1907		..	..	..	..	..	..	..	..	102	32	567
Corresponding period in	1906 ..	2	2	..	..	1	4	..	..	100	5	152
	1905 ..	..	..	..	..	6	12	..	..	146	18	187
	1904 ..	1	1	..	..	2	9	..	..	224	35	429

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Feb. 28, 1907.

Note.—The figures for the Current Year are approximate only.

* As Diseased or Exposed to Infecti

A Dog's Exploit.

A Mysore correspondent sends to the *Madras Mail*, the following interesting aecount of the wonderful exploit of his fox-terrier, which ran all the way from Bangalore to Mysore, probably along the railway line, covering the eighty seven miles in eleven hours and a half. The story seems almost too good to be true. but the correspondent, "T. D." says that it can be corroborated by several reliable people in Bangalore and Mysore:—

On Friday, 11th January, I took a dog in to Bangalore from Mysore by the night train to the City Station and then on by the Madras Railway to the Cantonment, He was left with his mistress who had been in England for the past nine months. The dog seemed quite at home and at 6 o'clock the lady went out, but on her return at 8 o'clock he was nowhere to be seen. It was too late and dark to make enquiries that night. Next day at 10 a.m. a telegram was received in Bangalore to say that the dog had arrived in Mysore. On my return I found that he had come to my bungalow at 5.30 a.m., a full hour before any train arrives from Bangalore, in a thoroughly exhausted condition. He took nothing but water all day and for a whole week suffered from the effects of his extraordinary exertion. The distance travelled by him on foot must have been fully eighty-seven miles and this he covered in eleven and a half hours. He has done the journey repeatedly by train, but never by road, and I imagine he must have come on this occasion along the railway lines. It was a pitch dark night. "Mick" is a thick-set fox-terrier, standing 15in. at the shoulder, and to look at him one would never think him capable of such an exploit.—*The Times of India.*

Horses in War Time and Motor Buses.

The rapid increase of motor buses will affect the supply of horses in time of war. Hitherto the London General Omnibus Company and the Road Car Company have registered their horses with the War Office, but now they have ceased to do so.

Mr. Haldane recently stated that the whole question of the supply of horses in war time is now being thoroughly considered.

Shire Horse Society.

Mr. R. W. HUDSON (President) occupied the chair at a meeting of the Council held at the Royal Agricultural Hall, N., on Thursday, February 28th.

The Chairman stated that the Stewards had handed in the report of the veterinary surgeons, which had been drawn up by them as follows:—

Number examined, 313.
Rejected, 33.

Causes of rejection: Whistling, 3: stringhalt, 1; spavin, 4; shivering, 2; roaring, 7; ringbone, 1; sidebone, 6; wrong height, 6; cataract, 2; lameness, 1.

The necessity of vetting the yearlings had been considered by the Committee, and they recommended that it should be referred to the new Horse Show Committee to consider the necessity of in future vetting the yearlings.

The Japanese Horse.

With a view to improve the breed of horses a company called the Horse Breeding Company has been formed in Japan. The capital of the company is to be £100,000. The company, it is said, will establish two large racecourses, one in Tokio, and the other in Mito.

Personal.

Mr. SIDNEY VILLAR is at present staying in Switzerland. We hope that the change may complete his restoration to health.

Mr. R. E. MONTGOMERY, of the Indian Civil Veterinary Department, is shortly proceeding to Central Africa at the instance of the Liverpool School of Tropical Medicine, to investigate certain points in regard to the mode of transmission of sleeping sickness by the tsetse fly.

ARMY VETERINARY SERVICE.

Extract from *London Gazette.*

WAR OFFICE, WHITEHALL, March 5.

IMPERIAL YEOMANRY.—Nottinghamshire (South Nottinghamshire Hussars).—Vet.-Capt. E. D. Johnson to be Vet.-Major. Dated 23rd January, 1907.

Captain F. U. Carr has joined at Aldershot and taken over command of the sections at that station.

The undermentioned officers, who recently returned from India, joined for duty on 1st March, at the stations stated against their names:—Captains A. E. Clarke, Aldershot: J. B. Southey, Woolwich: W. C. Lowe, Newcastle-on-Tyne: Lieutenant M. St. G. Glasse, Dublin.

The undermentioned officers, who were recently gazetted, joined for duty at Aldershot on 1st March:—Lieuts. A. Hodgins, H. A. Stewart, H. Bone, G. B. C. Rees-Mogg, H. C. Stewart, T. Lishman, R. Tindle, and S. Black.

Lieutenant T. Bone has been transferred from Aldershot to Brighton.

Major E. J. Lawson will be transferred from Woolwich to Hilsea on March 9th, and on his departure Major A. C. Newsom will take up the duties of Senior Veterinary Officer, Woolwich.

OBITUARY.

MATTHEW CLARKE, M.R.C.V.S., Wimbledon.
Graduated, Lond: April, 1864.

The death of "Mat" Clarke removes from the profession one of our typical practitioners.

Typical—in that he did his duty in his district as well as man could do. He established a reputation for honesty and skill and made a social position for himself which added to the dignity of his profession.

To his friends "Mat" Clarke was a loyal, genial man; tohis rivals in practice an example of all that was professionally correct; and to his clients a skilled adviser in whom the most perfect reliance could be placed.

Practitioners like Mr. Clarke raise the social and professional standing of the veterinary profession in public estimation more surely than do the scientific attainments of less practical men.

CHARLES NICHOLSON CARTER, M.R.C.V.S., Guildford.
Graduated, Lond: May, 1848.

We regret to record the death of Mr. Charles Carter, which took place at his residence, in Woodbridge Road, on Thursday morning, February 28th. Although he had been in failing health for some months, he had only been confined to his bed since January. The end came very suddenly. Deceased was one of Guildford's oldest and most respected residents, and general regret is felt at his decease.

Mr. Carter was born at East Dereham, Norfolk, on Oct. 3rd, 1826. He started life as a tutor in a large private school in his native town, but ill-health made it necessary for him to seek an out-door occupation. He then decided to follow the profession of his father, and became a veterinary surgeon. On leaving the College, where he passed with honours, he was offered the post of veterinary surgeon to the old East India Company, which for various reasons he refused. He took a practice at Swaffham, Norfolk, but the severity of the Eastern County winters compelled him to seek a warmer county, and he moved to Guildford in the year 1873. For some years he lived at St. Mary's Old Rectory, in Quarry Street, and afterwards at Woodbridge Road, where he has spent the major part of his life in Guildford.

Mr. Carter was veterinary inspector under the Board of Agriculture for the Guildford District for some years, and for thirty years he was inspector under the Contagious Diseases (Animals) Act, in the Guildford Market. Deceased leaves four daughters, (the eldest of whom is the wife of Mr. P. G. Bond, M.R.C.V.S., Plymouth), and three sons to mourn his loss.

The interment took place on Wednesday, the service being held at St. Saviour's Church.—*The Surrey Times.*

CORRESPONDENCE.

"PATHOLOGICAL ENTOMOLOGY."

Sir,

With reference to the report of Mr. Goodall's paper on "Pathological Entomology" published in your issue of March 2nd. I should like to point out a misleading error in the paragraph relating to mosquitoes.

Mr. Goodall describes differences in character between gnats and mosquitoes. The term gnat is a loose one, and is frequently applied to all insects of this type, such as "winter gnats," mosquitoes, etc. Mosquitoes may therefore in common parlance be termed gnats, whereas all gnats are not mosquitoes.

The illustration shows the head and mouth parts of a female of the genus Culex, compared with that of a female Anopheline, and the terms Culex (gnat) and Mosquito are used to distinguish them. Both, however, are typical mosquitoes.

The attitude assumed by these insects when at rest is not an unfailing characteristic of the species of mosquitoes comprised in the sub-families Culicinæ.

Further, in the female Anophelinæ the palpi do not extend quite to the end of the proboscis, although in the males they do.

In the males of the genus Culex the palpi are longer than the proboscis, while in the females they are short, as described by Mr. Goodall.

The author takes to task eminent pathologists for slips (?) in their work, but what are we to think of a professed entomologist who removes Culex, which forms the largest genus of mosquitoes from this position and calls it a gnat?

H. A. Reid, F.R.C.V.S.

Bromley, Kent, March 5th.

PRACTITIONERS AND SCHEDULED DISEASES.

Sir,

Adverting to your leading article of Feb. 23, let me point out that, whilst agreeing with you about the necessity for adding tuberculosis to the list of diseases scheduled under the Diseases of Animals Act, I feel that with the existing methods of administration the practitioner who does not happen to be an inspector is at a great disadvantage, which must increase as the number cases becomes greater.

To allow a man engaged in private practice to inspect his fellow practitioner's cases can only increase the influence of the inspector at the expense of the other. Especially so when some of the gentlemen holding the appointment are credited with having pointed out to the owner of the animal in question the saving that would have been effected if an inspector had been employed at first, as the Government would then defray all expense. The impression conveyed to the client's mind is too obvious.

Again, it often occurs that inspectors have to give an opinion on diseases about which they have very little experience, and not infrequently the reputation of the attending veterinary surgeon is made to suffer in consequence. Now, if the opinion of the practitioner in charge of the case cannot be taken, let us have as inspectors men who can really can lay claim to a special knowledge and experience, when possible, of the contagious diseases, and those who in the discharge of their duties have no other interests to serve.

In some districts I believe this already obtains in the person of the travelling inspector, and in my opinion it would be preferable if this procedure became general.—Yours faithfully,

Nemo.

MEDICAL NAMES.

Sir,

I have often thought that if John Bright had been a doctor and compiled a medical dictionary we should have got something of a standard nature in medical Anglo-Saxon.

I presume the Royal Commission called the dead languages to their aid because many of their investigations were conducted with dead or dying material. There was once a Society I believe that had for its chief tenet a dress that was supposed to be rational. They called it "Rational dress," but a lot of other people thought it was very irrational. No doubt they satisfied their consciences, however, and probably that is what the members of the Royal Commission did when they perpetrated the emphemisms to wit "dysgonic" and "eugonic."

There is a tendency to run to the opposite pole in scientific nomenclature. Rationality is said good-bye to and science slips overboard in such names as chigger, crawcraw, goitre, shingles, sprue, distemper (which always reminds me of painters and paper hangers), and glanders. Yet one finds all these names in books called scientific. Presumably some of these names still exist so that the young practitioner may not be utterly dumbfounded when an anxious mother comes in and says her child has got shingles or red gum.

Dead languages are clung to tenaciously by medical men although living languages are gradually finding more favour with them. Both have their uses but there does seem room for a strong plea to be put forward for the good old Anglo-Saxon tongue in matters medical. Probably no revolution will occur in this direction till an eminent medical man of a Coleridge or John Bright nature conducts a life-time crusade against all irrational, non-sensical, and unscientific medical and surgical names.—Yours truly,

Zero.

Communications and Papers received—Messrs. G. Mayall, J. A. Todd, H. P. Standley, J. McKenny, T. W. Turner. *The Law of Food Condemnation*, by Clarke Hall, office of *Meat Trades Journal*. Mar. 2.

Messrs. Joachim Da Costa, J. Clarkson, J. R. Carter, J. Spreull, H. J. Dawes, H. A. Reid, S. Locke, J. A. Todd, P. G. Bond, "Zero," "Nemo." *The Dick College Magazine*, *The Staffordshire Sentinel*, *South Wales Echo*, *Western Mail*. Mar. 9.

Original articles and reports should be written on one side only of the paper and authenticated by the names and addresses of the writers, not necessarily for publication,

Communications for the Editors to be addressed 20 Fulham Road, S.W.